



SPIRO

Solutions Pvt. Ltd

- **Research & Development Program (RDP)**
- **Final Year Academic Project (FAP) in software and Embedded Technologies**
- **Application Development Program (ADP)**



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About Spiro

Spiro Solutions South India's leading Research & Development Organization. Over a decade, we are furnishing individuals in all technologies and domains by fulfilling their desires in Research & Development sector through efficient training methodologies. All our efforts are focused on students to meet industry requirements.

The global presence and reach attained by Spiro is not only substantiated by its presence, but also by the environment provided for the students. Since our environment is encapsulated with doctorates, professionals and other experts. Accordingly, we created a setting which enables student to recover from the existing learning processes and making them to be an intellect.

In our increasing globalization, Spiro moves forward to unite the desires of students and challenges of the future in R & D sector by improving the agility and enabling students to achieve sustainable growth over their rivalry. For future enhancement, industry based knowledge's are provided for students in various levels. To sum up, we are filling student necessities in all possible ways to make career brighter in their desired field.



MATLAB

IMAGE PROCESSING

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
1.	ITIMP01	Context-Dependent Logo Matching and Recognition	Image Recognition , Logo Detection/ Recognition, Scale Invariant Feature Transform, Identify the Original or Fake Products/Certificates/Etc By Using Logos.	2013
2.	ITIMP02	Thermal Imaging as a Biometrics Approach to Facial Signature Authentication	Biometric Recognition (Face) , Thermal Imaging, Authentication, Localized Contouring Algorithms, Information Security, Law Enforcement, Smart cards.	2013
3.	ITIMP03	Robust Document Image Binarization Technique for Degraded Document Images	Image Restoration/ Degradation Degraded Document Image Binarization, Used in Restoring Document Images that suffer from Smear, Historical Documents.	2013
4.	ITIMP04	A Novel Reversible Data Hiding Scheme Based on Two-Dimensional Difference-Histogram Modification	Steganography , Reversible Data Hiding, Difference-Pair-Mapping, Two-Dimensional Difference-Histogram, Military, Medicine and Art.	2013
5.	ITIMP05	Fully Automated Segmentation and Tracking of the Intima Media Thickness in Ultrasound Video Sequences of the Common Carotid Artery	Bio-Medical, Image Segmentation , Thresholding, IMC Segmentation and Tracking Algorithm, Diagnosis and Treatment Planning, Early Detection of Blockage thus Avoids Strokes and Heart Attacks.	2013
6.	ITIMP06	Cross-Scale Coefficient Selection for Volumetric Medical Image Fusion	Bio-Medical, Medical Image Fusion , 3-D Medical Image Fusion, Cross-Scale Fusion Rule, Facilitates Image Processing.	2013
7.	ITIMP07	Automatic Segmentation of Scaling in 2-D Psoriasis Skin Images	Bio-Medical, Image Segmentation , Markov Random Field (MRF), Support Vector Machine (SVM), Pixel Labeling Algorithm, Improvement in Psoriasis Treatment, Used to solve a wide range of Scaling Problems.	2013



8.	ITIMP08	Super pixel Classification based Optic Disc and Optic Cup Segmentation for Glaucoma Screening	Bio-Medical, Fundus Image Processing, Super Pixel Classification, Thresholding, Histogram Equalization, Simple Linear Iterative Clustering Algorithm (SLIC), Early Treatment can Prevent Patients getting affected from Severe Condition and progression of Disease can be slowed down.	2013
9.	ITIMP09	Fingerprint Combination for Privacy Protection	Biometric Recognition, Finger, Reference Points Detection, Two-Stage Fingerprint Matching (Query Minutiae Determination and Matching Score Calculation), Minutiae-based Finger Print Matching Algorithms, Authentication, Security, Biometric Time Attendance Systems, Privacy protection.	2013
10.	ITIMP10	Vertical-Edge-Based Car-License-Plate Detection Method	Image Segmentation, Adaptive Thresholding (AT), Sobel Operator, Unwanted-Line Elimination Algorithm (ULEA), Vertical Edge Detection Algorithm (VEDA), Payment of Parking Fees, Highway Toll Fees, Traffic Data Collection, Crime Prevention, Vehicle Access Control, and Border Control.	2013
11.	ITIMP11	A Hierarchical Approach to Change Detection in Very High Resolution SAR Images for Surveillance Applications	Image Fusion, Ratio Operator, 2-D Discrete Stationary Wavelet Transform (2D-SWT), Thresholding, The Bayes Decision Rule, Expectation-Maximization (EM) Algorithm, Change Detection (CD) maps, Remote Sensing, Freight Traffic Surveillance.	2013
12.	ITIMP12	Change Detection in Synthetic Aperture Radar Images based on Image Fusion and Fuzzy Clustering	Image Fusion, Ratio Operator, Wavelet Transform (DWT and SWT), Remote Sensing, Medical Diagnosis, Video Surveillance.	2012
13.	ITIMP13	Removing Boundary Artifacts for Real-Time Iterated Shrinkage Deconvolution	Image Restoration/ Degradation Fourier Domain Deconvolution, Medical Field, Optics, Radio Astronomy.	2012
14.	ITIMP14	Interpolation-Based Image Super-Resolution Using Multisurface Fitting	Image Interpolation, MultiSurface Fitting, Sampling, Map Fusion, Interpolation based Super Resolution(SR) Method.	2012



15.	ITIMP15	Image Fusion Using Higher Order Singular Value Decomposition	Image Fusion, Higher Order Singular Value Decomposition (HOSVD), Remote Sensing, Medical Diagnosis, Video Surveillance	2012
16.	ITIMP16	A New Method for Cross-Normalization and Multitemporal Visualization of SAR Images for the Detection of Flooded Areas	Image Segmentation, Preprocessing Chain, Color Image Generation Process, Histogram Equalization, Image Normalization, Monitoring the Coastline, Emergency Response	2012
17.	ITIMP17	Human Identification Using Finger Images	Biometric Recognition, Finger, Preprocessing, Biometric Time Attendance Systems, Authentication, Ultrasonic Scanning.	2012
18.	ITIMP18	Scalable Coding of Encrypted Images	Steganography, Scalable Coding, Pseudo Random Number Generator, Remote Conferencing, Finger print Attendance System for Security.	2012
19.	ITIMP19	Nonstationary Harmonic Modeling for ECG Removal in Surface EMG Signals	Bio-Medical, Time-variant Harmonic Structure, Aircraft Stability and Control, ECG Machine, Hospital Fatigue Analysis	2012
20.	ITIMP20	An Ensemble-Based System for Microaneurysm Detection and Diabetic Retinopathy Grading	Bio-Medical, Fundus Image Processing, Medical Diagnosis and Grading, Ensemble based Framework, Preprocessing, Prevention of Blindness.	2012
21.	ITIMP21	Image Resolution Enhancement by Using Discrete and Stationary Wavelet Decomposition	Image Enhancement, Discrete Wavelet Transform and Stationary Wavelet Transform, Interpolation, Telecommunication medium.	2011
22.	ITIMP22	On the Selection of Optimal Feature Region Set for Robust Digital Image Watermarking	Steganography, Feature Region Selection Method, Genetic Algorithm, Copy Protection, Data Hiding(Covert communication)	2011
23.	ITIMP23	Multichannel Image Registration by Feature-Based Information Fusion	Bio-Medical, Medical Image Fusion, Feature-Level Information Fusion Method, Specimen Classification.	2011



COMMUNICATION & DSP

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
24.	ITCM01	Pitch Autopilot Design for Agile Missiles with Uncertain Aerodynamic Coefficients	Communication , Autopilot Design For Agile Missiles, Angles Of Attack, Integrator Back Stepping, H_{∞} -Norm Minimization, Aerodynamics.	2013
25.	ITCM02	Cognitive Radio Networks with Orthogonal Space-Time Block Coding and Multiuser Diversity	Communication, Cognitive Radio, Mobile Communication , OSTBC, Transmit Antenna Selection (TAS), Multiuser Selection.	2013
26.	ITCM03	Single-Carrier Frequency-Domain Equalizer with Multi-Antenna Transmit Diversity	Communication , Wi-Max, Alamouti Signaling, Minimum Mean Square Error (MMSE), Zero Forcing, Cyclic Delay Diversity (CDD).	2013
27.	ITCM04	A Novel Phase Offset SLM Scheme for PAPR Reduction in Alamouti MIMO-OFDM Systems Without Side Information	Communication, PAPR, SLM , space-frequency block coding (SFBC), video broadcasting and 3GPP, MIMO - OFDM .	2013
28.	ITCM05	An Interference Nulling Based Channel Independent Precoding for MIMO-OFDM Systems with Insufficient Cyclic Prefix	Communication , Cyclic Prefix (CP), Interference Alignment (IA), CIR, ICI And ISI, LTE or Mobile Communication, MIMO - OFDM .	2013
29.	ITCM06	Pilot Symbol Parameter Optimization Based on Imperfect Channel State Prediction for OFDM Systems	Communication , WIMAX, Channel Estimation, Minimum Mean Square Error (MMSE), Pilot Symbol Assisted Modulation (PSAM), OFDM .	2013
30.	ITCM07	Quantized CSI-Based Tomlinson-Harashima Precoding in Multiuser MIMO Systems	Communication, MIMO Systems , Tomlinson-Harashima Precoding, Quantized Channel State Information (CSI), QR Decomposition, Random Vector Quantization, Zero-Forcing, Wireless Communication.	2013
31.	ITCM08	Inner Bound on the GDOF of the K -User MIMO Gaussian Symmetric Interference Channel	Communication, MIMO Systems , Generalized Degrees Of Freedom, Interference Channel, Han-Kobayashi Scheme, Wireless Communication, Interference Alignment, Zero-Forcing.	2013
32.	ITCM09	Spectrum Sensing for Digital Primary Signals in Cognitive Radio: A Bayesian Approach for Maximizing Spectrum Utilization	Communication, Cognitive Radio , Mobile Communication, Bayesian Detector, PSK modulation.	2013



33.	ITCM10	Multiple Primary User Spectrum Sensing in the Low SNR Regime	Communication , Low SNR Regime, Spectrum Sensing , Multipath channels, Multiple primary users, Wireless communication.	2013
34.	ITCM11	A Peak Power Efficient Cooperative Diversity using Star-QAM with Coherent/Non-coherent Detection	Communication , Power amplifier, QAM, Amplify and-forward (AF), Pair wise error probability (PEP), Satellite communication, DVB-SH.	2013
35.	ITCM12	Video-Based Crowd Density Estimation and Prediction System for Wide-Area Surveillance*	Communication , Crowd Density Estimation, Prediction System, Accumulated Mosaic Image Difference (AMID), GMM, Visual Surveillance, Automated Monitoring Crowd Movements .	2013*
36.	ITCM13	Delay-Limited Source and Channel Coding of Quasi-Stationary Sources over Block Fading Channels: Design and Scaling Laws	Communication , MIMO systems, Outage Capacity, Quasi-Stationary Source, Outage Distortion, Source And Channel Coding, Rate And Power Adaptation, Wireless Communication.	2013
37.	ITCM14	Interference Alignment Techniques for MIMO Multi-Cell Interfering Broadcast Channels	Communication , Cellular Network, Medium Access Channel-Broadcast Channel(MAC-BC), Interference Alignment, Beam Forming .	2013
38.	ITCM15	Space-Time Code Design for Multiple-Access Channels With Quantized Feedback	Communication , TDMA, Space Time Block Coding (STBC), Full Diversity, Mobile Ad-Hoc Networks	2013
39.	ITCM16	Interference Alignment With Differential Feedback	Communication , cellular network, Lloyd algorithm, Minimum Differential feedback	2012
40.	ITCM17	On Performance Improvement of Wireless Push Systems via Smart Antennas	Communication , Data Broadcasting And Probability Updating Scheme, Probability Of Demand, Satellite Communication .	2012
41.	ITCM18	Secure Communication in the Low-SNR Regime	Communication , Energy Efficiency, Energy Per Secret Bit, Fading Channels, Gaussian Channels, Information-Theoretic Security, Low-Snr Regime, MIMO systems, Secrecy Capacity.	2012
42.	ITCM19	Cooperative Spectrum Sharing Protocol with Selective Relaying System	Communication , Cognitive Radio , Mobile Communication, Distributed secondary user selection, cooperative protocols, Relay selection.	2012



43.	ITCM20	Uncoordinated Beam forming for Cognitive Networks	Communication, Cognitive Radio, Mobile Communication, Interference Cancellation, Beam forming Vector, optimal solution algorithm	2012
44.	ITDSP01	Wavelet Based ECG Steganography for Protecting Patient Confidential Information in Point-of-Care Systems	DSP, Data Security, Encryption And Wavelet Decomposition, Water Marking, Biomedical Applications.	2013
45.	ITDSP02	Audio Watermarking Via EMD	DSP, Water Marking , Empirical Mode Decomposition (EMD), Synchronization Code, IMF, Signal Security And Copy Rights.	2013
46.	ITDSP03	Empirical Mode Decomposition vs. Wavelet Decomposition for the Extraction of Respiratory Signal from Single-Channel ECG: a Comparison	DSP, Encryption and Wavelet Decomposition, Embedding, Empirical Mode Decomposition, Respiratory Sensing System, Biomedical Applications.	2013
47.	ITDSP04	Cooperative Secure Beam forming for AF Relay Networks With Multiple Eavesdroppers	DSP, Secure Communication, Amplify-And-Forward Relaying, Cooperative Beam Forming , Physical-Layer Security, Secrecy Rate Maximization	2013
48.	ITDSP05	Performance of Two Low-Rank STAP Filters in a Heterogeneous Noise	DSP, Space Time Adaptive Processing, Low-rank clutter, Normalized sample Covariance matrix, Perturbation method, SIRV, Sample Covariance Matrix. RADAR	2013
49.	ITDSP06	Opportunistic Distributed Space-Time Coding for Decode-and-Forward Cooperation Systems	DSP, Decode-And-Forward (DF), Space-Time Coding (STC), Cooperative Diversity, Wi-Fi And Ad-Hoc Networks	2012
50.	ITDSP07	Finitely Supported L_2 - Optimal Kernels for Digital Signal Interpolation	DSP, Interpolation, Fourier Transform, L_2 Space, Aliasing, Signal Processing, Image Processing.	2012



POWER ELECTRONICS

POWER ELECTRONICS – SIMULATION WITH HARDWARE

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
1.	ITPW01	Analysis and Design of a Push Pull Quasi-Resonant Boost Power Factor Corrector	AC-DC Boost PFC Converters. Only Two Switches, Non Linear Load Applications Like UPS .	2013
2.	ITPW02	Low-Common Mode Voltage H-Bridge Converter with Additional Switch Legs	AC-DC Boost PFC converters, Bi-Directional Converters, Designed For Both Rectification And Inversion,	2013
3.	ITPW03	A Novel Flyback-Based Input PFC Stage for Electronic Ballasts in Lighting Applications	AC-DC PFC In Electronic Ballast An Electronic Driver For Public Lighting Systems, Bidirectional Power Flow, Input Diode Bridge Is Absent,	2013
4.	ITPW04	High-Efficiency LED Driver Without Electrolytic Capacitor for Street Lighting	AC-DC PFC For LED Lighting Applications,	2013
5.	ITPW05	New Efficient Bridgeless Cuk Rectifiers for PFC Applications	AC-DC PFC For Computer Industry And Telecommunications, THD (< 2%) and PF = 0.99,	2012
6.	ITPW06	Transformer-less Inverter With Virtual DC Bus Concept for Cost-Effective Grid-Connected PV Power Systems	DC-AC A Photovoltaic GTI, Low THD (< 1.5%) with PF = 0.99, Less EMI, Simple structure	2013
7.	ITPW07	Switched Boost Inverter (SBI) for Standalone DC Nanogrid Applications	DC-AC A Photovoltaic GTI, From Inverse Watkins Johnson Topology, Low EMI,	2013
8.	ITPW08	A Safety Enhanced, High Step-Up DC-DC Converter for AC Photovoltaic Module Application	DC-AC A Photovoltaic GTI, Floating Switch So Much Electrical Safety, Only One Switch In Use With Transformer,	2012
9.	ITPW09	Improved Trans-Z-Source Inverter With Continuous Input Current and Boost Inversion Capability	DC-AC Z-Source Inverters, High Boost Voltage Structure With Continuous Input Current, Small Size Transformer,	2013
10.	ITPW10	Single-Carrier Modulation for Neutral-Point-Clamped Inverters in Three-Phase Transformerless Photovoltaic Systems	DC-AC Multilevel Inverters, No Need Of Complex SVM or Multicarrier PWM Technique, Single Phase Structure 5-Level Design	2013

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11.	ITPW11	A Five-Level Single-Phase Grid-Connected Converter for Renewable Distributed Systems	DC-AC Multilevel Inverters, Simple Fbi Structure With Two Levels Obtained By The Discharge Of The Two DC Link Capacitors,	2013
12.	ITPW12	A Generalized Cascaded Multilevel Inverter Using Series Connection of Sub Multilevel Inverters	DC-AC Multilevel Inverters, A New Control Structure With Less Switches, Less EMI, 13 & 31 Level Output, Hardware System: 7-Level	2013
13.	ITPW13	Design and Implementation of a New Fifteen level Multilevel Inverter Topology	DC-AC Multilevel Inverters, A multi carrier modulation, THD = 0.5%, Hardware System: 7-Level	2012
14.	ITPW14	Design, Analysis, and Implementation of Solar Power Optimizer for DC Distribution System	DC-DC Grid Systems, Integrates Coupled Inductor And Switched Capacitor To Realize High Step-Up Voltage Gain,	2013
15.	ITPW15	An Integrated Boost Resonant Converter for Photovoltaic Applications	DC-DC Grid Systems, Galvanic Isolation, Low Component Count,	2013
16.	ITPW16	Cascade Cockcroft-Walton Voltage Multiplier Applied to Transformerless High Step-Up DC-DC Converter	DC-DC UPS Systems , Provides Continuous Input Current With Low Ripple, High Voltage Ratio, & Low Voltage Stress On The Switches,	2013
17.	ITPW17	High-Efficiency Single Switch Single-Input Multiple-Output DC-DC Converter	DC-DC UPS Systems , Boost A Low-Voltage I/P To A High-Voltage Dc Bus And Middle-Voltage Output,	2013
18.	ITPW18	Novel Non-isolated High-Voltage Gain DC-DC Converters Based on 3SSC and VMC	DC-DC UPS Systems , Based On The Three-State Switching Cell And Voltage Multiplier Cells, 2 Switches,	2012
19.	ITPW19	Analysis and Design of a Zero-Voltage-Switching and Zero-Current-Switching Interleaved Boost Converter	DC-DC UPS Systems , Reduced Switching Losses, ZVS And ZCS Works Simultaneously,	2012
20.	ITPW20	A Resonant Converter for Improved-Efficiency Domestic Induction Heating System	AC-AC Induction Heating , Used In Domestic Appliances For Faster Heating Process, Generates Required AC To Feed The Inductor,	2013
21.	ITPW21	A 1-kW Step-Up/Step-Down Switched-Capacitor AC-AC Converter	AC-AC Line Conditioners, Voltage Can Be Bucked Or Boosted Directly,	2013
22.	ITPW22	A Modified Single-Phase Quasi-Z-Source AC-AC Converter	AC-AC Line Conditioners, Voltage Can Be Bucked Or Boosted Directly With $V_{THD} < 5\%$ and PF of 0.99,	2012
23.	ITPW23	LCL VSC Converter for High-Power Applications	Power Delivery , Can Achieve Voltage Stepping.	2013



POWER SYSTEMS – SIMULATION

24.	ITPW24	Control of Improved Full-Bridge Three-Level DC/DC Converter for Wind Turbines in a DC Grid	Power Systems , Converter For Offshore Wind Turbine Based On (PMSGs) In A Dc Grid, Energy Efficient View	2013
25.	ITPW25	Control Structure for Single-Phase Stand-Alone Wind-Based Energy Sources	Power Systems , Efficient Power Balance And Power Quality, Power Can Be Effectively Delivered And Supplied By The Wind Turbine	2013
26.	ITPW26	Control of Parallel Multiple Converters for Direct-Drive Permanent-Magnet Wind Power Generation Systems	Power Systems , Parallel-Operation Controllers Are Designed To Restrain Reactive Power Circulation By Dis-Continuous Space-Vector Modulation, Simple Current Sharing	2012
27.	ITPW27	Cascaded Multilevel Converter Based TSTATCOM	Power Systems , Paralleled CMC modules system, Eleven Level operation, Reactive power control.	2013
28.	ITPW28	Adaptive Control of a Voltage Source Converter for Power Factor Correction	Power Systems , STATCOM Based VSC, Robust Tracking Performance Of The Controller	2013
29.	ITPW29	A DSTATCOM Topology with Reduced DC-Link for Non-Stiff Source	Power Systems , Uses A Series Capacitor Along With The Interfacing Inductor And A Shunt Filter Capacitor, Hysteresis Current Control	2012
30.	ITPW30	Adaptive Fuzzy-Neural-Network Design for Voltage Tracking Control of a DC–DC Boost Converter	Power Systems , Alleviates The Control Chattering Phenomena In The TSMC Design And Ensures The Stability By Lyapunov Theorem, Maglev Train Applications	2012

POWER ELECTRONICS – HARDWARE [INDUSTRIAL ELECTRONICS]

31.	ITPH01	Synthesizable Integrated Circuit and System Design for Solar Chargers	AC-DC Battery Chargers , Automatic Design Tool For A Solar Energy Harvesting, The Buck–Boost Converter Architecture.	2013
32.	ITPH02	Reconfigurable Solar Converter: A Single-Stage Power Conversion PV-Battery System	AC-DC Battery Chargers , Reconfigurable Solar Converter (RSC) For Photovoltaic (PV)-Battery	2013



			Application, Minimizes The Number Of Conversion Stages.	
33.	ITPH03	An Integrated Motor Drive and Isolated Battery Charger for Plug-In Vehicles	DC-AC Battery Chargers , An Isolated High-Power Three-Phase Integrated Motor Drive And Charger, High-Power Isolated Device	2013
34.	ITPH04	Zero No-Load Power AC/DC Adapter for Electronic Equipment With Embedded Battery	AC-DC Battery Chargers , Embedded Battery Is Used As A Signal Source For The Detection Of Load Connection, Reduces The No-Load Power Consumption.	2013
35.	ITPH05	Nonlinear Behavior and Instability in a Three-Phase Boost Rectifier Connected to a Nonideal Power Grid With an Interacting Load	AC-DC Boost Rectifier , An Irreversible Bifurcation Phenomenon In A Three-Phase VSC Connected To A Power Grid With An Interacting Load, Three Phase Balanced Resistive Load Is Connected At The Same PCC.	2013
36.	ITPH06	A New Three-Phase Two-Switch ZVS PFC DCM Boost Rectifier	AC-DC Boost Rectifier , Zero-Voltage Switching (ZVS) of all the switches over the entire input-voltage And load ranges is operated	2013
37.	ITPH07	Input Differential-Mode EMI of CRM Boost PFC Converter	AC-DC PFC Reduced Conduction Dm Noises Of A Single-Phase CRM Boost PFC Converter.	2013
38.	ITPH08	Light-to-Light: PV-Fed LED Lighting Systems	AC-DC LED Drives , A Converter Directly Convert The Sun Irradiation Into Artificial Light.	2013
39.	ITPH09	High Power Factor AC-DC LED Driver With Film Capacitors	AC-DC, Led Drives , Peak To-Average Ratio Of The Pulsating Current In LEDs And The Storage Capacitance Is Discussed.	2013
40.	ITPH10	Three-Phase UPS Systems Operating Under Nonlinear Loads	AC-DC UPS Systems , New Design Strategy That Overcomes The Limitations Of The Classical RMS Control	2013
41.	ITPH11	A Single-Phase High-Power-Factor Rectifier, Based on a Two-Quadrant Shunt Active Filter	AC-DC UPS , Based On A Conventional Bidirectional Dc-Dc Boost Converter Connected In Parallel After Rectifier.	2011
42.	ITPH12	Design of a Three-Phase Four-Switch PWM Voltage-Source Rectifier	AC-DC UPS , It's The Design Of A 4-Switch Rectifier To Reduce The Implementation Of Active Filters By Replacing With Passive Elements	2011



43.	ITPH13	A DCM Flyback PV Micro- inverter	DC-AC Inverters, Minimum Decoupling Discontinuous Conduction Mode Flyback Inverter.	2013
44.	ITPH14	Current Source Inverter-Fed AC Machine Drive System	DC-AC Motor Drives, High Active Damping Methods Are Incorporated To Enhance The Stability Of The System.	2013
45.	ITPH15	Grid Interfacing of Photo- voltaic Inverters	DC-AC, Renewable Energy, Investigates The Possibility To Control High-Power PV Inverters.	2013
46.	ITPH16	A Single-Phase Grid-Connected Fuel Cell System Based on a Boost-Inverter	DC-AC, Renewable Energy, Bidirectional Converter Operation, The Low-Frequency Current Ripple Is Supplied By The Battery.	2013
47.	ITPH17	Generalized Multicell Switched-Inductor and Switched-Capacitor Z-Source Inverters	DC-AC Z-Source Inverters, Adds An Extra Boosting Flexibility While Keeping The Number Of Active Semi- Conductors Unchanged, Voltage-Type And Current-Type Z-Source Inverters.	2013
48.	ITPH18	Γ -Z-Source Inverters	DC-AC Z-Source Inverters, Uses Lesser Components And A Coupled Transformer.	2013
49.	ITPH19	Space-Vector-Modulated Three-Level Inverters With a Single Z-Source Network	DC-AC Z-Source Inverters, Enables The Operation Of The Z-Source Arrangement To Be Optimized And Implemented Digitally.	2013
50.	ITPH20	Asymmetric Control of DC-Link Voltages in Three-Level Inverters	DC-AC Multilevel Inverters, Each De-Link Voltage Of The Three-Level Inverter Can Be Asymmetrically Regulated.	2013
51.	ITPH21	A Novel Digital Active EMI Filter Used in a Grid-Tied PV Microinverter Module	DC-AC, Renewable Energy, The Daef Control Technique Is Concurrently Implemented With A Digital Controller.	2013
52.	ITPH22	A Novel Soft-Switching Snubberless Current-Fed Half-Bridge Front-End Converter-Based PV Inverter	DC-AC Renewable Energy, Converter Attains Clamping Of The Device Voltage By Secondary Modulation, Thus Eliminating The Need Of Snubber Circuits	2013



53.	ITPH23	High Boost Ratio Hybrid Transformer DC-DC Converter for Photovoltaic Module Applications	DC-DC , Hybrid Transformer To Transfer The Inductive And Capacitive Energy Simultaneously, Achieves A High Boost Ratio With A Smaller Sized Magnetic Component.	2013
54.	ITPH24	Current control for high-dynamic high-power multiphase buck converters	DC-DC , When It Comes To High-Power Current Sources, Multiphase Buck Converters Become An Attractive Alternative To Deliver High Currents.	2012
55.	ITPH25	A High Step-Up Converter With a Voltage Multiplier Module for a Photovoltaic System	DC-DC , An Extra Conventional Boost Converter Is Integrated Into The First Phase To Achieve A Considerably Higher Voltage Conversion Ratio.	2013
56.	ITPH26	Analysis of a double Ladder Topology Multilevel DC/DC Converter	DC-DC UPS , These Converters, Called Switched Capacitor Converters, Which Are Widely Used Nowadays Present Inherent Power Losses.	2012
57.	ITPH27	Novel Energy Conversion System Based on a multimode Single-Leg Power Converter	DC-DC, Renewable Energy , A Bidirectional Converter, Cost Effectiveness Incorporates Battery-Based Energy Source	2013
58.	ITPH28	Small Ring-Type Coils for Multi-winding Induction Heating Appliances	AC-AC, Induction Heating , recent Developments in these appliances have focused on flexible cooking Surfaces, including adjustable-size	2013
59.	ITPH29	Battery/Supercapacitors Combination in Uninterruptible Power Supply (UPS)	AC-AC Converters , Super- Capacitors Used As High-Power Storage Devices To Smooth The Peak Power Applied To Deliver Full Power During Short Grid Outages.	2013
60.	ITPH30	DC-Voltage Fluctuation by Capacitor Current Control for Converters.	Wind Energy , A Resonant Controller Is Used To Increase The Loop Gain Is Added To The Conventional GSC.	2013



VLSI

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
1.	ITVL01	Area-Delay Efficient Binary Adders in QCA	Area Efficient , Quantum-Dot Cellular Automaton, Low-Power High- Performance Digital Circuits, Low-Area Adders, DSP	2013
2.	ITVL02	Parallel AES Encryption Engines for Many-Core Processor Arrays	Area Efficient , Rijindael Algorithm, Mobile Phones, Encryption Decryption Circuits, Image Processing, Satellite Communication.	2013
3.	ITVL03	Low-Complexity Multiplier for GF(2 ^m) Based on All-One Polynomials	Area Efficient , Novel Cut-Set Retiming, RS code Encoder and Decoder, Register Sharing Technique, Storage Devices,	2013
4.	ITVL04	Split Radix Algorithm for Length 6 ^m DFT	Area Efficient , Split Radix 3/6 Algorithm, DCT Applications, Spectral analysis, Data compression, Polynomial multiplication.	2013
5.	ITVL05	A Probabilistic Estimation Bias Circuit for Fixed-Width Booth Multiplier and Its DCT Applications	Area Efficient , Probabilistic Estimation Bias, DCT Applications, Image/Video compression.	2011
6.	ITVL06	A Novel modulo Adder for 2 ⁿ -2 ^k -1 Residue Number System	Low Power , Parallel Prefix Algorithm, Carry Correction Technique, Arithmetic High-Speed Systems, FIR Filtering	2013
7.	ITVL07	Low-Power, High-Throughput, and Low-Area Adaptive FIR Filter Based on Distributed Arithmetic	Low Power , LMS (least mean square) Adaptive Algorithm, DA-based technique, Digital radio receivers, Down converts, Software Radio.	2013
8.	ITVL08	Measurement and Evaluation of Power Analysis Attacks on Asynchronous S-Box	Low Power , Advanced Encryption Standard Algorithm, Null Convention Logic (NCL).	2012
9.	ITVL09	A Low-Power Single-Phase Clock Multiband Flexible Divider	Low Power , Satellite Transmitter & Receiver, Radio transmitter, Military Application.	2012
10.	ITVL10	Low-Power and Area-Efficient Carry Select Adder	Low Power , Binary to excess Converter, Satellite Communication	2012



11.	ITVL11	On Modulo 2^n+1 Adder Design	Low Power , Inverted Circular Idem Potency Property, Pseudorandom Number Generation, Cryptography.	2012
12.	ITVL12	CORDIC Based Fast Radix-2 DCT Algorithm	High Speed , DCT Algorithm, Fast Radix-2 FFT Technique, Mobile Multimedia Devices, Signal & Image Processing, Digital Cameras, HDTV.	2013
13.	ITVL13	Low Latency Systolic Montgomery Multiplier for Finite Field GF (2^m) Based on Pentanomials	High Speed , Montgomery Multiplication algorithm, Error control coding systems Elliptic curve cryptography (ECC). RS Transmitter Receiver, AES Encryption Decryption Design.	2013
14.	ITVL14	Design of Digit-Serial FIR Filters: Algorithms, Architectures and a CAD Tool	High Speed , Exact CSE Algorithm, GB Algorithm, Fourier transforms, Discrete Cosine Transforms, Error-Correcting Codes, video processing.	2013
15.	ITVL15	Reduced-Complexity LCC Reed-Solomon Decoder Based on Unified Syndrome Computation	High Speed , The Low-Complexity Chase (LCC) Decoding Algorithm, Reed Solomon Transmitter and Receiver, Storage systems.	2013
16.	ITVL16	Design of an Error Detection and Data Recovery Architecture for Motion Estimation Testing Applications	High Speed , SAD Algorithm, Satellite communication, Digital video broadcasting, Film industry.	2012
17.	ITVL17	Construction of Optimum Composite Field Architecture for Compact High-Throughput AES S-Boxes	High Speed , Advanced Encryption Standard algorithm, Image Encryption, Network security, Satellite communication.	2012
18.	ITVL18	High-Throughput Interpolator Architecture for Low-Complexity Chase Decoding of RS Codes	High Speed , Nielson's Interpolation Algorithm, Data Storage, Data Transmitter & Receiver.	2012
19.	ITVL19	Design of Testable Reversible Sequential Circuits	Testing , Conservative Logic Reversible QCA Gate Technique, Fault coverage for single missing/additional cell, Testing a sequential Circuits.	2013
20.	ITVL20	Test Patterns of Multiple SIC Vectors: Theory and Application in BIST Schemes	Testing , MSIC-TPG Scheme, Built-In Self-Test (BIST) Technique, Circuit verification section, Electronic system design.	2013



21.	ITVL21	Gate Mapping Automation for Asynchronous NULL Convention Logic Circuits	Testing, Multi-Rail Logic Expression Mapping Algorithm, Industrial Designs, Encryption Decryption circuits,	2013
22.	ITVL22	Period Extension and Randomness Enhancement Using High-Throughput Reseeding-Mixing PRNG	Testing, Reseeding-Mixing Method, Circuit Debugging, Circuit Verification.	2012
23.	ITVL23	Accumulator Based 3-Weight Pattern Generation	Testing, Weighted Test Pattern Generation, Circuit Debugging, Digital-to-analog converter stimulation.	2012
24.	ITVL24	Single Cycle Access Structure for Logic Test	Testing, Built-In Self Test (BIST), Circuit Verification Section.	2012
25.	ITVL25	Improvement of the Security of Zigbee by a New Chaotic Algorithm	VLSI With MATLAB, RFCA (Robust and Fast Chaotic Encryption) algorithm, Industrial & Medical Applications, Network Security.	2013
26.	ITVL26	High-Throughput Multi standard Transform Core Supporting MPEG/H.264/VC-1 Using Common Sharing Distributed Arithmetic	VLSI With MATLAB, Common Sharing Distributed Arithmetic (CSDA) algorithm, Digital Cinema, Video And Image Applications, DCT Compression Application. HDTV broadcast and Digital Cinema applications.	2013
27.	ITVL27	Multicarrier Systems Based on Multistage Layered IFFT Structure	VLSI With MATLAB, IFFT algorithms, Radix-2 Technique, Multiple access communications, Satellite Communication, Mobile Communication & OFDM.	2013
28.	ITVL28	Area-Efficient Parallel FIR Digital Filter Structures for Symmetric Convolutions Based on Fast FIR Algorithm	VLSI With MATLAB, Fast Finite-Impulse Response Algorithm (FFA), Video Processing, MIMO systems.	2012
29.	ITVL29	Quantization Noise Suppression in Fractional-PLLs Utilizing Glitch-Free Phase Switching Multi-Modulus N-Frequency Divider	VLSI With MATLAB, Novel Glitch-Free Phase Switching, Radio Receivers, Mobile Phones, Satellite Receivers, GPS systems.	2012
30.	ITVL30	Precision-Aware Self-Quantizing Hardware Architectures for the Discrete Wavelet Transform	VLSI With MATLAB, Lifting Based Discrete Wavelet Transform, Data Compression, Analog Filter, Biomedical Signal Processing.	2012



EMBEDDED

TECHNOLOGY: EMBEDDED

DOMAIN: ROBOTICS

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
1.	ITROB01	A Robot that Approaches Pedestrians	In this paper We reported the development of a technique that allows a robot to Approach walking people, particularly, visitors in a shopping mall.	2013
2.	ITROB02	Front Sensor and GPS-Based Lateral Control of Automated Vehicles	This work proposes an automated steering control system for passenger cars. Feasibility of a control strategy based on a front sensor and a Global Positioning System (GPS).	2013
3.	ITROB03	Adaptive PD Controller Modeled via Support Vector Regression for a Biped Robot	The real-time balance control of an eight link biped robot using a zero moment point (ZMP) dynamic model is difficult due to the processing time of the corresponding equations. To overcome this limitation, an Intelligent computing control technique is used. This technique is based on support vector regression	2013
4.	ITROB04	A Compact and Compliant External Pipe-Crawling Robot	The focus of this paper is on the practical aspects of design, prototyping, and testing of a compact, compliant external Pipe-crawling robot that can inspect a closely spaced bundle of pipes in hazardous environments and areas that is inaccessible to humans.	2013
5.	ITROB05	MSU Jumper: A Single-Motor-Actuated Miniature Steerable Jumping Robot	The ability to jump is found widely among small animals Such as frogs, grasshoppers, and fleas. They jump to overcome large obstacles relative to their small sizes. Inspired by the animals' jumping capability, a miniature jumping robot Michigan State University (MSU) Jumper—has been developed.	2013
6.	ITROB06	Customized Ultra High Frequency Radio Frequency Identification Tags and Reader Antennas Enabling Reliable Mobile Robot Navigation	RFID is being adopted more and more in many contexts, including robotics, where it is used as supplementary support for the navigation and localization of robots. Indeed, when an RFID reader placed on the robot reads a tag marking a certain map point, specific algorithms can be used to estimate tag and/or robot position.	2013
7.	ITROB07	Dynamic Ultrasonic Hybrid Localization System for Indoor Mobile Robots	An accurate dynamic ultrasonic hybrid localization system is presented for autonomous navigation of indoor mobile robots using multiple ultrasonic distance measurements and an Extended Kalman filter.	2013



8.	ITROB08	A Novel Surgical Manipulator with Workspace-Conversion Ability for Telesurgery	This paper proposes a surgical manipulator with workspace conversion ability for both minimally invasive surgery (MIS) and open surgery. The focus of the proposed surgical manipulator is on its potential use in places such as battlefields, army camps, and rural areas rather than in civilian hospital.	2013
9.	ITROB09	Robust Adaptive Controller for a Tractor-Trailer Mobile Robot	A tractor-trailer wheeled robot is a kind of modular robotic system that consists of a tractor template attached with a single or multiple trailers, and hence it is a nonlinear and under actuated system subjected to non holonomic constraints. Tracking control of such a complicated system is a challenging Problem and that is the focus of this paper.	2013
10.	ITROB10	Tank-Like Module-Based Climbing Robot Using Passive Compliant Joints	This paper proposes an under actuated modular climbing robot with flat dry elastomeric adhesives. This robot is designed to achieve high speed, high payload, and dexterous motions That is typical drawbacks of previous climbing robots.	2013
11.	ITROB11	Omega-Shaped Inchworm-Inspired Crawling Robot With Large-Index-and-Pitch (LIP) SMA Spring Actuators	In this paper, we have presented a novel design concept for a small-scale robot inspired by an inchworm, along with an analysis for improving the performance of the proposed robot. It is called the Omega-bot.	2013
12.	ITROB12	Automatic Lighting System Using Multiple Robotic Lamps	An automatic lighting system using 3-DOF robotic lamps and a laser scanner is proposed in this paper. The 3-DOF Robotic lamp, which is designed with a spherical parallel mechanism with a unique forward kinematic solution, has a tilting motion to track a person and zoom-in and zoom-out motions to control the light intensity.	2013
13.	ITROB13	Towards a New Modality-Independent Interface for a Robotic Wheelchair	This work presents the development of a robotic wheelchair that can be commanded by users in a supervised way or by a fully automatic unsupervised navigation system. Users can command the wheelchair based on their eye blinks, eye movements, head movements, by sip-and puff and through brain signals.	2013
14.	ITROB14	Minimal Grasper: A Practical Robotic Grasper With Robust Performance for Pick-and-Place Tasks	In this paper, a flexible enveloping grasper is proposed for pick-and-place tasks with low manipulation and task planning complexity for practical applications. The proposed Grasper has two main char: self-adaptively and flexibility.	2013
15.	ITROB15	Automatic Weed Detection System and Smart Herbicide Sprayer Robot for corn fields	In this paper a robot along with a system is designed to identify weeds using MATLAB and spray pesticide to make the agric-farm free of weeds	2013



16.	ITROB16	Self-recognition of Vehicle Position Using UHF Passive RFID Tags	In this paper proposes the position of the robot will automatically estimate. Without human interaction it will navigate from one place to another place.	2013
17.	ITROB17	Multiple Working Mode Control of Door-Opening With a Mobile Modular and Reconfigurable Robot	In this paper robot is used for household applications. It automatically does the operations based on the command received from the user.	2013
18.	ITROB18	Robust Railway Crack Detection Scheme (RRCDS) Using LED-LDR Assembly	This method proposes led and Ldr based crack detection robot using GPS and wireless Network location will also be traced.	2012
19.	ITROB19	Modeling and Control of a Snake-Like Robot Using the Screw-Drive Mechanism	In this paper we implement the snake robot. Using this model we can collect data from different places.	2012
20.	ITROB20	Design of A Hexapod Robot	This paper introduces hexapod robot. This robot will move in different terrain.	2012
21.	ITROB21	Smart Host Microcontroller for Optimal Battery Charging in a Solar-Powered Robotic Vehicle	This Paper proposes a solar power based robot vehicle. It absorbs energy from solar and the energy will be stored in battery.	2012
22.	ITROB22	An Autonomous Robot Based on a Wheelchair	This robot is based on wheelchair. It moves from one place another place. The sensor interfaced with this robot finds obstacles means using GPS the location will display.	2012
23.	ITROB23	Autonomous Navigation Robot For Landmine Detection Applications	This robot is designed for landmine applications. The detection sensor is fixed in robot. If it detects means send alert information to the control section.	2012
24.	ITROB24	Wireless Vision Based Stabilization of Indoor Micro-helicopter	This paper introduces small size helicopter for spy applications. Using wireless camera we can identify the exact location.	2012
25.	ITROB25	Robot Navigation System with RFID and Sensors	In this paper proposes RFID based automatic position estimation robot. Using ultrasonic sensors robot is navigated in fixed path.	2012
26.	ITROB26	An Online Stair-Climbing Control Method for a Transformable Tracked Robot	This paper proposes stair climbing robot for industrial purpose. So the manual power is fully reduced. From online we can control the robot.	2012
27.	ITROB27	An Energy Efficient Knee Locking Mechanism for a Dynamically Walking Robot	This paper proposes walking robot by innovative method. In this knee locking robot mechanism is designed to avoid falling of robot.	2011
28.	ITROB28	Solar Power System for Experimental Unmanned Aerial Vehicle (UAV); Design and Fabrication	In this paper, solar cells were used to increase the endurance of the aircraft. Obtaining this goal, an electrical Circuit was developed to measure the output power of the batteries of the aircraft during the flight.	2011



29.	ITROB29	Construction of an Obstacle Map and its Real-time Implementation on an Unmanned Ground Vehicle	The objective of this paper is to develop and implement a UGV control system utilizing embedded micro-controllers. This control system must enable the UGV to navigate using GPS to the waypoints while avoiding obstacles discovered in its path.	2011
30.	ITROB30	A Hierarchical Algorithm for Indoor Mobile Robot Localization Using RFID Sensor Fusion	This paper has addressed an RFID based localization scheme for mobile robots which uses ultrasonic sensor for obstacle avoidance. The proposed system was able to obtain the position of the mobile robot without any constraint from the environment using RFID technology.	2011
31.	ITROB31	Imirok: Real-Time Imitative Robotic Arm Control for Home Robot Applications	In this paper, we have presented the design, implementation, and Evaluation of an imitative robotic arm control system using MATLAB and embedded system.	2011
32.	ITROB32	Automated Voice based Home Navigation System for the Elderly and the Physically Challenged	In this paper, we propose an Intelligent Home Navigation System (IHNS) which comprises of a wheelchair and voice recognition module. It can be used by an elderly or physically challenged person to move inside the home without any difficulty.	2011
33.	ITROB33	Hazardous Gas Detecting Method Applied in Coal Mine Detection Robot	Coal Mine Detection Robot is required to detect hazardous gas. The explorative robot uses improved infrared ray absorption prospecting instrument to detect CO and temperature of environmental group data, it has strong integration and micro-miniaturization.	2011
34.	ITROB34	The Application of Adaptive PID Control in the Spray Robot	The objective of this paper is to control the robotic spray mechanism using a PID controller for agricultural and green house maintenance.	2011
35.	ITROB35	Weighing System of Fruit-Transportation Gyro car Based on ARM	The gyro car uses weight sensor to measure the load. It moves automatically to the destination when the measured load reaches the set load.	2011
36.	ITROB36	Zigbee based Wireless Sensor Networks for Service Robot Intelligent Space	The Zigbee based wireless sensor networks has been implemented in our service robot intelligent space successfully, which greatly improve the perception of service Robot.	2011
37.	ITROB37	Situation-Driven Control of a Robotic Wheelchair to Follow a Caregiver	We have proposed a robotic wheelchair that can move with a caregiver collaboratively depending on the situation. In an Open space, it moves with the caregiver side by side using MATLAB. This enables easy communication between the wheelchair user and the caregiver.	2010
38.	ITROB38	Indoor autonomous hovering control for a small unmanned coaxial helicopter	This paper constructs an indoor Autonomous flight control platform for a small coaxial helicopter, which is convenient for data collection and monitoring in remote area.	2010



39.	ITROB39	Design and Implementation of Multi-sensor Based Autonomous Minesweeping Robot	The small handful of landmines that remain undiscovered, can actually lead to an increase in civilian mine casualties. Wireless connection is established between the local controller on the robot and general controller that is installed at the outside of the minefield to handle the whole navigation procedure.	2010
40.	ITROB40	Autonomous Agricultural Robot and Its Row Guidance	It is used to guide a robot platform which is designed independently to drive through the row crops in a field according to the design concept of open architecture.	2010

TECHNOLOGY : EMBEDDED

DOMAIN : NON IEEE - ROBOTICS

S.NO	PROJECT CODE	PROJECT TITLES
41.	NIROB01	Design of a Wall-Climbing Robot with Passive Suction Cups
42.	NIROB02	Wireless Underwater Mobile Robot System Based on Zigbee
43.	NIROB03	Design and Implementation of a Mini-Size Search Robot
44.	NIROB04	Multi-sensor Fusion and Integration: A Review on Approaches and Its Applications in Mechatronics
45.	NIROB05	Unwanted Polythene Bags And Pet Bottles Collecting Robot
46.	NIROB06	Head Motion Controlled Wheel chair
47.	NIROB07	7th Sense, A Multipurpose Robot for Military
48.	NIROB08	Wireless Image Communication Robot for Fire Fighting Robots
49.	NIROB09	MATLAB based intruder detection and shooting robot.
50.	NIROB10	Touch screen based wheelchair robot for physically challenged people
51.	NIROB11	Automatic navigation robot for industrial applications based on RFID technology
52.	NIROB12	Human identification robot in forest area
53.	NIROB13	Versatility Technique for Patient Monitoring System
54.	NIROB14	Cartesian robot for the purpose of the pick and place
55.	NIROB15	RF Based Robot Control Using PIR Sensor For Defense Force.
56.	NIROB16	Identification of cracks in tunnel using tunnel robot
57.	NIROB17	Lift controller using Microcontroller



58.	NIROB18	MEMS Accelerometer controller Wheel chair
59.	NIROB19	4-wire resistive Touch screen controlled Robot
60.	NIROB20	Microcontroller based weather forecasting robot using GSM

TECHNOLOGY: EMBEDDED

DOMAIN: ANDROID

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
61.	ITANR01	Using Android Platform to detect Free Fall	This paper presents a detection mechanism for free fall condition using common commercially available electronic devices. We utilize an Android based smart phone with an in-built tri-axial accelerometer for the purpose.	2013
62.	ITANR02	Data acquisition and control using Arduino-Android Platform : Smart plug	In this work, we propose to develop a smart plug, an energy monitoring system that provides real time update of the energy consumption at the device level. The proposed device is using an Arduino microcontroller board, an ENC28J60 Ethernet module, and a current transformer sensor.	2013
63.	ITANR03	Experimental Study and Design of Smart Energy Meter for the Smart Grid	This paper presents the development of a GSM and Zigbee based smart meter. This meter can measure the energy and send the information to the service provider, who can store this information and notify the consumer through SMS messages or through the internet.	2013
64.	ITANR04	Wireless Machine-to-Machine Healthcare Solution Using Android Mobile Devices in Global Networks	In this project the biomedical parameters are updated to internet from which through an application in PC the same data is transmitted back to the doctor's Android mobile through Bluetooth.	2013
65.	ITANR05	Accessible Display Design to Control Home Area Networks	In this paper, we have developed a security system that interfaces with an Android mobile device. The mobile device and security system communicate via Bluetooth because a short-range-only communications system was desired. The mobile application can be loaded onto any compatible device, and once loaded, interface with the security system.	2013
66.	ITANR06	Smart Public Transportation Services Using Smart Phones In Vehicular Environments	Our objective is to implement a new system that improves the existing shared taxi service by benefiting both the taxi drivers and passengers. The general idea is to design a system whose server receives requests from passengers and offers from drivers using smart phones with GPS capabilities and Internet access (3G/WIFI hotspots).	2012



67.	ITANR07	Coupled Mobile Phone Platform With Peak Flow Meter Enables Real-Time Lung Function Assessment	This project is purely depends on to monitoring the lungs part. In these generations so many people suffering from lot of breathing problem because of so many reason. So here we use PCG & respiratory sensor to get the condition of their lungs.	2012
68.	ITANR08	E-book platform competition in the presence of two-sided network externalities	The theme of this project is to build a device that guides us regarding any information. For example guidance for tourist, guidance for shopping etc.	2012
69.	ITANR09	Providing Accident Detection in Vehicular Networks Through OBD-II Devices and Android-based Smart-phones	This paper describes the automatic intimation of accidents in the roadways via mobile phones which has the android OS. This system will use the internet for monitoring instantly.	2012
70.	ITANR10	Remotely Controlled Communication and Control System for Limited Mobility Individuals	The main objective of the project is to make the system very easier to control the applications by reducing the mobility for the patients. The controlling will be done from the wheel chair itself.	2012
71.	ITANR11	A Smartphone-in-the-Loop Active State-of-Charge Manager for Electric Vehicles	This paper proposes a novel, spatially distributed and hierarchical control architecture that is capable of regulating the battery state of charge by imposing a desired discharge rate.	2012
72.	ITANR12	A Wireless Sensory Feedback Device for Real-Time Gait Feedback and Training	The main objective of this paper is to intimate the walking status of the patient by using the wearable sensor. The intimation will be received in the mobile phone.	2012
73.	ITANR13	Evaluation of a Smartphone Platform as a Wireless Interface Between Tongue Drive System and Electric Powered Wheelchairs.	This paper describes the controlling of the wheel chair by using tongue. The mobile phone is the interfacing device between the controlling section and the wheel chair section.	2012

TECHNOLOGY: EMBEDDED

DOMAIN: AUTOMATION

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
74.	ITAM01	Context-Adaptive Multimodal Wireless Sensor Network for Energy-Efficient Gas Monitoring	In this paper a context- adaptive gas monitoring system is established to reduce power consumption in home monitoring systems.	2013
75.	ITAM02	Safe Maritime Autonomous Navigation With COLREGS, Using Velocity Obstacles	Three primary COLREGS rules are considered in this paper: crossing, overtaking, and head-on situations. For autonomous USVs to be safely deployed in environments with other traffic boats.	2013



76.	ITAM03	Embedded Flexible Force Sensor for <i>In-Situ</i> Tire-Road Interaction Measurements	In this paper a system is designed to monitor the tire pressure of a running vehicle as tire pressure is more vital in defining a car's features such as mileage, warranty etc.	2013
77.	ITAM04	Context Aware Driver Behaviour Detection System in Intelligent Transportation Systems (ITS)	In this paper a system is designed to categorize the driver's behavior into three: normal, fatigue and reckless driving and the counter measures are taken automatically.	2013
78.	ITAM05	Shared Steering Control Between a Driver and an Automation: Stability in the Presence of Driver Behavior Uncertainty	In this paper, the drivers uncertainty is detected using MATLAB and EMBEDDED and the system automatically takes control over the steering to avoid accidents.	2013
79.	ITAM06	Automatic License Plate Recognition (ALPR): A State-of-the-Art Review	In this paper using MATLAB the vehicles license plate is captured to extract the license no and it is used in toll collection and to check traffic violation.	2013
80.	ITAM07	Locking and Unlocking of Theft Vehicles Using CAN	In this paper a system is designed to avoid vehicle theft using CAN bus. The theft vehicle is stopped very immediately after it has been stolen using this approach.	2013
81.	ITAM08	An Integrated Health Management Process for Automotive Cyber-Physical Systems	In this paper multiple nodes of CAN is established where controlling is done in a common node with measurement done at different nodes, the measurement being engine temperature, viscosity etc.	2013
82.	ITAM09	Design of an Intelligent Electric Vehicle for Blind	In this paper a system is designed to help blind people to control a Wheel Chair in two modes: manual, automatic. In manual it is controlled using voice module kit and in auto mode controlled using ultrasonic sensor.	2013
83.	ITAM10	Traffic Violation Detection Using Multiple Trajectories Evaluation of Vehicles	This paper proposes a system in which if a violation is found at traffic signals, the scenario is captured in a camera to identify the vehicle causing violation to take necessary legal action.	2013
84.	ITAM11	A Tactical Information Management System for Unmanned Vehicles Using Vehicular Ad-hoc Networks	In this paper a system is designed in which the communications between UVs are made between them itself, instead of a central communication node. The information exchanged are their location coordinates etc.	2013
85.	ITAM12	Design of Milk Analysis Embedded System for Dairy Farmers	In this paper a milk analyzing system is designed which measures the FAT content and quantity of milk along with the identification of farmers and calculates the cost of milk	2013
86.	ITAM13	Design And Development Of PIC Microcontroller Based Vehicle Monitoring System	In this paper a system is designed using CAN and PIC to monitor the environment inside the vehicles and display it in a common display.	2013



		Using Controller Area Network (CAN) Protocol		
87.	ITAM14	Application of Temperature Compensated Ultrasonic Ranging for Blind Person and Verification Using MATLAB	This paper contains a method to implement a mobility aid for blind person and also can be used in automatic robots, self-propelling vehicles in automated production factories etc. Paper contains temperature compensation method to reduce the error in measurement of distance using ultrasonic sensors.	2013
88.	ITAM15	Driver Fatigue Detection Using Machine Vision Approach	This system uses MATLAB based eye movement and measures steering gripping pressure using grip sensor to detect the fatigue state of the driver. The microcontroller warns the driver when he is in fatigue state to prevent accident.	2013
89.	ITAM16	A Multiple Inductive Loop Vehicle Detection System for Heterogeneous and Lane-Less Traffic	The loop sensor proposed in this paper detects large as well as small vehicles occupying any available space in the roadway, which is the main requirement for sensing heterogeneous and lane-less traffic.	2012
90.	ITAM17	Water-Cluster-Detecting Breath Sensor and Applications in Cars for Detecting Drunk or Drowsy Driving	This paper presents to identify the driver drowsy and drunk using sensors, if it detects means it will alert to the driver and intimate to the control section.	2012
91.	ITAM18	The House Intelligent Switch Control Network Based on CAN Bus	In this paper we will control the home appliances using can protocol. Switching and human motion detection both methods will be use.	2012
92.	ITAM19	An Effective Pedestrian Detection Method For Driver Assistance System	In this paper using sensor and image processing technique driver can easily identify the pedestrian near the road. So the accidents will reduce.	2012
93.	ITAM20	The Design of the Steering Wheel with Anti-fatigue Driving for Vehicles Based on Pattern Recognition	This paper presents a driver fatigue monitor & warning. Gps is used for navigate the position of the vehicle.	2012
94.	ITAM21	Design of Distributed Greenhouse Big Awning Monitoring System Based on Field-bus	Using this method we will monitor and control the greenhouse parameters using can protocol. The sensor collects data it above threshold means it automatically switches on the corresponding devices.	2012
95.	ITAM22	Hand-Motion Crane Control Using Radio-Frequency Real-Time Location Systems	This paper presents crane control using hand motion. Using RF technology we can control wirelessly.	2012
96.	ITAM23	Multiple-Target Tracking for Intelligent Headlights Control	This paper introduces MATLAB based headlight control. In image processing technique.	2012



97.	ITAM24	Study on the Embedded CAN Bus Control System in the Vehicle	This paper introduces ARM and can bus base automatic vehicle control system. The parameters monitored	2012
98.	ITAM25	On the Impact of Virtual Traffic Lights on Carbon Emissions Mitigation	This paper presents reduce the carbon emissions near the traffic signal. The first incoming vehicle will send the information about traffic signal to all other vehicles.	2012
99.	ITAM26	Feasibility Of Intelligent Monitoring Of Construction Workers For Carbon Monoxide Poisoning	In this paper a system is designed to monitor the Carbon Monoxide content of atmosphere and report immediately to avoid death loss at construction site.	2012
100.	ITAM27	Indoor Positioning System Using Ultrasonic	This paper proposes an ultrasonic based object location identification using RF communication position will displayed in PC.	2011
101.	ITAM28	A Thermally Actuated Micro Electro Mechanical (MEMS) Device for Measuring Viscosity	Changes in oil viscosity in vehicles result in major breakdowns and repairs. The proposed MEMS device is able to measure the viscosity variation of heated motor oil by the change in natural vibration frequency in the oil.	2011
102.	ITAM29	Implementation of CAN bus in an autonomous All-Terrain Vehicle	This paper describes about implementing the CAN bus on Automated vehicles. The proposed consists of multiple node of CAN bus to control	2011
103.	ITAM30	Measurement and Control System of Soil Moisture of Large Greenhouse Group Based on Double CAN Bus	The measurement and control system of soil moisture of large greenhouse group based on double CAN bus is introduced in this paper. According to the soil moisture level of various nodes the water is fed to the field using motor.	2011
104.	ITAM31	Research of Roots Flow Meter Based on ARM Cortex-M3	This paper introduces an intelligent roots flow meter to measure the gas flow in industries. It uses temperature and pressure sensors to measure gas flow.	2011
105.	ITAM32	The intelligent embedded control warning system for car reversing	This research tries to design a set of embedded intelligent car backup warning system so Promote the safety of the walkers or the other drivers on the Road. It uses ultrasonic & light sensor to detect the rear vehicles & pedestrians. A warning lamp is used.	2011
106.	ITAM33	Combined Capacitive and Ultrasonic Distance Measurement for Automotive Applications	For the safety applications, the Electronic Control Unit (ECU) of an automotive requires accurate information about size and position of an approaching object. A capacitive and ultrasonic sensor was used to measure the size and position of an obstacle.	2011
107.	ITAM34	A Hybrid Wired/Wireless Networking Infrastructure for Greenhouse Management	This paper has presented a communication system for the Monitoring and control of greenhouses. Multi protocol system based on Zigbee and CAN were used to monitor and control the greenhouses.	2011


TECHNOLOGY : EMBEDDED
DOMAIN : NON IEEE-AUTOMATION

S.NO	PROJECT CODE	PROJECT TITLES
108.	NIAM01	Real-Time Combinatorial Optimization for Elevator Group Dispatching
109.	NIAM02	A Reconfigurable Snake Robot Based on CAN-Bus
110.	NIAM03	A New Method for Detecting Leaks in Underground Water Pipelines
111.	NIAM04	Ethernet Enabled Digital I/O Control in Embedded Systems
112.	NIAM05	Timer Based Electrical Oven Temperature Monitoring and Control For Metal Industries
113.	NIAM06	Ration Card Distribution System.
114.	NIAM07	Touch screen based home automation
115.	NIAM08	Touch screen based vehicle driving system
116.	NIAM09	Water scheduling for municipalities using RTC
117.	NIAM10	Automatic Dam Shutter Control based on Microcontroller
118.	NIAM11	Automatic Irrigation Water Supply Monitoring And Control System
119.	NIAM12	Automatic Vehicle Starter System Based Alcohol Breath Analyzer \Sensing
120.	NIAM13	Petrol Bunk Automation Using Smartcard
121.	NIAM14	Solar Operated Spray Pump
122.	NIAM15	Micro Controller Based Wireless Home Automation
123.	NIAM16	Apartment automation monitoring and management system.
124.	NIAM17	Design and development of touch screen based ticket vending machine
125.	NIAM18	Green House Monitoring and Automation



126.	NIAM19	Automatic Railway Gate Control With Voice Announcement
127.	NIAM20	Intelligent banking machine for Physically Impaired

TECHNOLOGY: EMBEDDED

DOMAIN: WIRELESS

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
128.	ITWI01	A System for Automatic Notification and Severity Estimation of Automotive Accidents	In this system a VANET is designed in which the information of a road accident is passed through vehicle moving in the vicinity of the vehicles in the same region such that it reaches all the vehicles trying to enter into the lane where accident is met. This avoids traffic congestion on roads.	2013
129.	ITWI02	Tour Planning for Mobile Data-Gathering Mechanisms in Wireless Sensor Networks	In this paper, a system is proposed to create a mobile node which can collect data from other nodes and update it to a central information collecting node, so that the frequency dependent of nodes are avoided and eliminated	2013
130.	ITWI03	Zigbee-assisted Power Saving Management for Mobile Devices	This paper proposes a power saving architecture for Network devices. The low power usage of Zigbee devices is used to control the power on process of Wi-Fi enabled devices, so that power consumption is reduced.	2013
131.	ITWI04	Low Power Wireless Sensor Network for Building Monitoring	In this paper a system is designed to monitor the vibrations caused in a building due to earthquakes and the stability factor is determined for the stamina of the building to survive a similar or higher earthquake in prior to take necessary action	2013
132.	ITWI05	Environment monitoring and device control using ARM based Embedded Controlled Sensor Network	In this system environment parameters such as temperature is measured and monitored through Zigbee and the devices are controlled either through Zigbee or using GSM. This system use both medium range and wide range protocol.	2013
133.	ITWI06	Wireless Sensor Network Based Smart Home: Sensor Selection, Deployment and Monitoring	In this paper an elder care system is proposed in which the electrical appliances usage sensor has been developed in such a way that it can monitor the time and duration of usage of different appliances to monitor the activities of the elders at home. This information is updated in INTERNET so that the care giver can view the information even at remote places.	2013



134.	ITWI07	Optimal Demand Response Capacity of Automatic Lighting Control	In this paper, we propose to take a systematic optimization-based approach to assess demand response capacity of automatic lighting control systems in commercial and office buildings.	2013
135.	ITWI08	Building a Smart Home System with WSN and Service Robot	This paper examines the possibility of integration WSN and the service robots into a smart home application. The service robots can be considered to be mobile nodes that collect information from wireless sensor nodes and control devices automatically.	2013
136.	ITWI09	Electromyography Based Locomotion Pattern Recognition and Personal Positioning Toward Improved Context-Awareness Applications	In this paper a system is proposed with EMG-based pattern recognition of four motions (walking, running, walking upstairs, walking downstairs). This is helpful to monitor people who have leg injuries. Also accelerometer is used to detect whether they fall due to their activities.	2013
137.	ITWI10	Wireless Surface Acoustic Wave Pressure and Temperature Sensor With Unique Identification Based on LiNbO3	in this paper a Surface Acoustic Wave Pressure sensor is designed and implemented to detect ships moving with low to heavy loads in oceans so that their access to the shore can be restricted if needed.	2013
138.	ITWI11	A Zigbee Sms Alert System With Trust Mechanism In Wireless Sensor Networks	In this paper we propose a novel architecture for alarm generation in wireless sensor zone with the use of trust mechanism. Trust between the sensor nodes is an important issue in wireless sensor network. Trust between the sensor nodes provides secure, reliable path for data packets and accurate alarm generation.	2013
139.	ITWI12	Traffic Signal Control System Based on Wireless Technology	According to the requirements of traffic signal control, a new wireless traffic signal control system is developed in this paper. On the existing several kinds of wireless communication are compared and choose the most of them determine the most suitable for application in traffic controller tech in them.	2013
140.	ITWI13	Passenger BUS Alert System for Easy Navigation of Blind	To overcome the drawbacks of currently available assistive devices, we propose a Wireless sensor network system with Zigbee for blind identification by the bus and embedded system for providing the bus number and finally GPS for destination indication.	2013
141.	ITWI14	Building Lighting Automation through the Integration of DALI with Wireless Sensor Networks	This paper explains the developed system for building automation protocols. This work focuses on the development of a prototype to be used in a wireless sensor network (WSN) which Integrates DALI protocol to monitor heating, Ventilation and air conditioning.	2012



142.	ITWI15	Ship Detection with Wireless Sensor Networks	This paper presents an idea to detect the ship using three-axis accelerometers which is placed at the sea surface. Depends upon the wave oscillation created during ship arrival the accelerometer will detect it.	2012
143.	ITWI16	Wireless Sensor Network Based Home Monitoring System for Wellness Determination of Elderly	Here the system function based on the usage data of electrical and Non-electrical appliances within a home by the elderly persons. The current sensor measure the current values consumed and transmitting the data in wireless ZIGBEE network.	2012
144.	ITWI17	A Wireless Surveillance and Safety System for Mine Workers based on Zigbee	In this paper the basic parameters of the Mine like temperature, Abnormal gases, are monitored and intimation is transmitted in wireless mode to the Monitoring section and also gives intimation in mine in the voice format.	2012
145.	ITWI18	Design a wireless capacitive sensor detection system with power line communication for liquid volume of intravenous drip measurement	In this system the level of drip is going to be determined by fixing capacitive sensor along the surface of the drip bag and abnormal status is transmitted to other section using Power line communication (PLC) medium.	2012
146.	ITWI19	Low Cost Weather Station with Remote Control	In this paper the weather station parameters are monitored and depend upon the status the home devices are controlled.	2012
147.	ITWI20	Cloud Controlled Intrusion Detection and Burglary Prevention Stratagems in Home Automation Systems	In this paper the home automation is performed by detecting the intruder using camera and the status is uploaded in internet and sends as message. The alert devices are activated from internet.	2012
148.	ITWI21	In-Building Lighting Management System with Wireless Communications	The Lighting management is done by checking the intensity of light depends upon the human's presence. And it is monitored in PC wireless mode.	2012
149.	ITWI22	Intelligent wireless street lighting system	This system proposes a solar operated street lighting system based on the presence of humans and light intensity and sending the data to the management center in wireless mode.	2012
150.	ITWI23	Voice Recognition Based Wireless Home Automation System	In this paper home automation is achieved through voice control. A voice recognition module is used to identify commands and with the help of microcontroller the devices are controlled to make home automation feasible eve for disabled.	2011



151.	ITWI24	An environment monitoring system for precise agriculture based on wireless sensor networks	In this system the agricultural parameter are obtained and transmitted to receiver section, monitored and uploaded to internet.	2011
152.	ITWI25	More Efficient Home Energy Management System Based on Zigbee Communication and Infrared Remote Controls	The objective of this project is to control the home devices using infrared remote controller and Zigbee communication. This proposed architecture gives more efficient energy-saving architecture and home energy management.	2011
153.	ITWI26	Digital control for Home Lighting Systems with Zigbee Communication	This paper presents various method of controlling the lighting system. Here, we use scheduled control, automatic control and manual control. It also uses dimming circuit to reduce the lighting illumination.	2011
154.	ITWI27	Real Time Paddy Crop Field Monitoring Using Zigbee Network	In this paper we are going to utilize the sensor in the paddy crop field area and gives proposed architecture for real time paddy crop field monitoring with Zigbee wireless sensor network.	2011
155.	ITWI28	The Design of Tiered Pricing Meter Based on Zigbee Wireless Meter Reading System	The tiered pricing meter based on ZIGBEE technology can record electricity consumption used by customers. After accumulation of a month, the monthly consumption of every period and the total energy will be transmitted through Zigbee to electricity board for billing.	2011
156.	ITWI29	Elder Care Based on Cognitive Sensor Network	The objective of this paper is to alarm an elderly person living alone in a panic condition. ZIGBEE is used as a wireless medium to get data from current sensor, weight sensor and water flow sensor. The controller receives the data from those sensors and data's are updated in PC.	2011
157.	ITWI30	Traffic Information Service Based on Vehicle Ad-Hoc Network	We propose a traffic information service simply relying on the GPS systems in vehicles and wireless communication devices for vehicle-to-vehicle communication. Here, the Ad-Hoc network is a multichannel wireless communication system.	2011
158.	ITWI31	Monitoring and Alarming System Based on Zigbee Technology	This paper presents a GPRS and ZIGBEE integrated monitoring and alarming system. The GPRS technology is used to complete data exchanging between remote monitoring center and wireless sensor subnets.	2011



159.	ITWI32	A Forest Fire Monitoring System Based on GPRS and Zigbee Wireless Sensor Network	In this paper, a forest fire monitoring system is built based On ZIGBEE wireless sensor network and GPRS wireless communication. The objective of this paper is prevention and monitoring of large forest area using wireless communication.	2010
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TECHNOLOGY : EMBEDDED
DOMAIN : NON IEEE-WIRE LESS

S.NO	PROJECT CODE	PROJECT TITLES
160.	NIWI01	Intelligent Home Monitoring and Intruder Detection System Using Wireless Technology
161.	NIWI02	Home Automation System Based On Wireless and Internet
162.	NIWI03	Identification of Missing Objects with Group Coding of RF tags
163.	NIWI04	Antenna Adjusting control through PC using RF communication
164.	NIWI05	Smart zone based Vehicle speed control system based on RF
165.	NIWI06	Anti theft alert and auto arresting system for museums and jewelry shops.
166.	NIWI07	Wireless motor speed control using RF
167.	NIWI08	Border security system using RF
168.	NIWI09	Vehicle detection in no parking area using RF and magnetic sensor
169.	NIWI10	Intelligent traffic system for emergency vehicle using Wireless sensor network
170.	NIWI11	RFID Based attendance management with door access control
171.	NIWI12	Signal indicator for Vehicles in Single hair pin Bend and vehicle counter
172.	NIWI13	Wireless vehicle path finder using IR and RF
173.	NIWI14	Wireless digital code lock with status display
174.	NIWI15	Radio Frequency based Real-time Child monitoring and alarm system
175.	NIWI16	Development of Anti-Rigging Voting system using RFID card Technology.

**TECHNOLOGY: EMBEDDED****DOMAIN: GSM AND GPS**

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
176.	ITGP01	Certificate less Remote Anonymous Authentication Schemes for Wireless Body Area Networks	Wireless body area network has been recognized as one of the promising wireless sensor technologies for improving healthcare service thanks to its capability of seamlessly and continuously exchanging medical information in real time	2013
177.	ITGP02	Online Monitoring of Geological CO2 Storage and Leakage Based on Wireless Sensor Networks	A remote online carbon dioxide (CO2) concentration monitoring system is developed, based on the technologies of wireless sensor networks, in allusion to the gas leakage monitoring requirement for CO2 capture and storage.	2013
178.	ITGP03	GSM Based Automatic Energy Meter Reading System with Instant Billing	This paper presents the design of a simple low cost wireless GSM energy meter and its associated web interface, for automating billing and managing the collected data globally.	2013
179.	ITGP04	Energy management in an automated Solar powered irrigation system	This paper gives information about development procedure of an embedded system for Off-Grid irrigation system. The design projects on developing an intelligent controlled mechanism for best possible utilization of resources for irrigation.	2013
180.	ITGP05	Hajj Crowd Management and Navigation System	This paper explores the solution to track the movement of pilgrims via RFID technology. A location aware mobile solution will also be integrated into this.	2013
181.	ITGP06	A Novel Approach to Implement Green Wave system and Detection of Stolen Vehicles	We have developed a system which is used to provide clearance to any emergency vehicle by turning all the red lights to green on the path of the emergency vehicle, hence providing a complete green wave to the desired vehicle.	2013
182.	ITGP07	A New Type of Automatic Alarming Device to Rescue Accident Injured in Time	In this paper a device is designed that can accurately detect an accident and judge crash types by testing whether the device may trigger false alarm when vehicle is during normal driving and sled test of vehicle frontal	2013
183.	ITGP08	ARM Hardware Platform for Vehicular Monitoring and Tracking	Design of Vehicular monitoring and tracking system based on ARM using GSM and GPM is proposed. The vehicular module is used to track, monitor, and surveillance and finds the accident spot and intimate to the monitoring station.	2013
184.	ITGP09	Wireless Sensor Network For Multi-Storey Building: Design and Implementation	In this paper, a wireless sensor network based multi-storey building automation system has been designed, implemented and tested which is used for several applications such as indoor	2013



			environmental data acquisition, building security monitoring, and human-tracking light control. Moreover, the system can remotely control of home appliances through Internet and mobile network.	
185.	ITGP10	An Icing On-Line Monitoring System of Transmission Lines based on WSN	This paper presents a hierarchical wireless sensor network based on Zigbee technology, after analyzing the limitations of communication methods used by existing monitoring system.	2013
186.	ITGP11	Automated Control System for Air Pollution Detection in Vehicles	This whole paper mainly focuses on two things. The First thing is the concept of detecting the level of Pollution and indicating it to the driver. The second is that this system will be one of the greatest improvements in technology to keep the Environment free from vehicular emission.	2013
187.	ITGP12	Sun tracking control strategy for improved reliability and Performance	In this study, a cost effective two-axis sun tracker has been developed. The ARM Cortex-M3 core microprocessor successfully calculated the tilt angle of the solar panel in order to investigate the accurate sun elevation angle.	2012
188.	ITGP13	Design of Intelligent Home Appliance Control System Based on ARM and Zigbee	This paper describes the controlling of many devices which will be connected with the Zigbee network. The main node contains the ARM with touch screen for controlling of the devices from the control center.	2012
189.	ITGP14	Multi sensor Railway Track Geometry Surveying System	In this paper, a new railway track geometry surveying system, which is designed by integrating the inclinometer, GNSS receiver, and total station, is introduced	2012
190.	ITGP15	Bus Monitoring System Based On Zigbee And GPRS	This paper proposes a Supervisory system which combines the advantages of Zigbee & GPRS technology to improve the operating efficiency of bus system	2012
191.	ITGP16	A Real-Time Conductor Sag Measurement System Using a Differential GPS	This paper proposes a Differential Global Positioning System(DGPS) to directly measure the Conductor Sag in Transmission Lines	2012
192.	ITGP17	Wireless Black Box Using MEMS Accelerometer and GPS Tracking for Accidental Monitoring of Vehicles	This paper proposes a system which combines GPS & GSM with MEMS technology to monitor emergency Conditions of vehicles on road	2012
193.	ITGP18	Automatic Measurement and Reporting System of Water Quality Based on GSM	This paper proposes an intelligent system which measures the quality of water with aid of associated sensors and reports it.	2012
194.	ITGP19	Aided Navigation Techniques for Indoor and Outdoor Unmanned Vehicles	This paper proposes a navigation technique which uses LRF for indoor and GPS along with INS system for outdoor navigation which is used with UV	2012



195.	ITGP20	Automatic Ambulance Rescue System	This paper proposes an approach which embodies vibration sensor, GSM and GPS to immediately inform Emergency vehicle in case of accident	2012
196.	ITGP21	Design of Concealed Alarm System Based on GSM	This paper proposes a system which uses a foot step alarm system and IR remote controlled alarm system in case of emergency at banks and organization	2012
197.	ITGP22	Positioning and Tracing System Study Of All Terrain Forest Fire Patrolling and Fighting Vehicle	This paper describes the design of a vehicle which will be useful for firefighting during the fire accident. The vehicle will be controlled wirelessly.	2012
198.	ITGP23	Remote Energy Monitoring, Profiling and Control Through GSM Network	The objective of the paper is to monitor the energy consumption by sending the energy meter reading to the monitoring section without using the manual power.	2012
199.	ITGP24	Realization of Intelligence Monitoring System Based on Remote Sensor Technology	This paper describes the increasing of security in monitoring of the important places using the sensor technology.	2012
200.	ITGP25	The Design and Implementation of Remote Real Time Monitor System for Embedded Devices Based on GPRS	This paper introduces the embedded and the GPRS based monitoring system which will uses the renewable sources. This system will be in wireless manner to reduce the manual power.	2012
201.	ITGP26	Smart Parking Reservation System using Short Message Services (SMS)	In this paper a smart parking system is proposed in commercial car park areas. A parking reservation is done in such a way that users book their parking slots through short message services (SMS).	2011
202.	ITGP27	Database Design of GPRS-Oriented Remote Meter Reading System	The main objective of the paper is to reduce the manual power in the meter reading system. The readings from the many nodes will be uploaded in the web server using the GPRS technology with the meter information, user information.	2011
203.	ITGP28	The energy consumption monitoring platform design for large-scale industry users based on the GPRS	This paper describes the uploading of the meter reading to the EB section using the GPRS technology from the remote place itself.	2011
204.	ITGP29	Design of Gas Information Collection and Control System Based on GPRS	The main objective of this paper is to monitor the gas parameters in the gas industries. The sensors will be used for monitoring the parameters like pressure, flow, and leakage in the pipeline.	2011
205.	ITGP30	Research on alarm system of railway crossing based on GPS and GPRS	The main objective of the paper is to intimate the railway crossing section about the arrival of the train. GPS and the sensor technology is used for monitoring the location and the speed of the train. The information will be uploaded in internet via GPRS modem	2011



206.	ITGP31	Design of Auto-guard System Based on RFID and Network	The auto-guard system combines the advantages of RFID and GSM together. It is the very effective method to reduce the theft rate of vehicle; it effectively utilizes the usage of GSM and RFID to avoid vehicle theft.	2011
207.	ITGP32	The Flexible Bus Systems Using Zigbee as a Communication Medium	This project is combined of the effective usage of the Zigbee, GPS, and RFID. It maintain and regulates the Bus system effectively and how to make it more reliable using short range wireless technology Zigbee.	2011
208.	ITGP33	Position Matching Based Autonomous Speed Regulation System for Vehicles	This paper deals with creating an onboard speed regulation module for vehicles which can monitor as well as control their instantaneous speed in comparison with the maximum permissible speed of that location. The location is obtained using position tracking technology of GPS and GSM system.	2011
209.	ITGP34	Research on Communication link of Remote Wireless Monitoring System Based on GPRS and MCU	This paper briefly describes the design of remote wireless monitoring hazardous parameters through sensors using MCU and updated the values in the internet through GPRS	2011

TECHNOLOGY : EMBEDDED

DOMAIN : NON IEEE GSM & GPS

S.NO	PROJECT CODE	PROJECT TITLES
210.	NIGSM01	Heavy Vehicles Alert And Intimating System For Traffic Police Using Capacitive Sensor And GSM.
211.	NIGSM02	Electronic Energy Meter With Instant Billing
212.	NIGSM03	Identifying Objects Using RF Transmitters and Receivers, and Retrieving Data Using GSM.
213.	NIGSM04	Design Of Intelligent Traffic Light Controller Using Embedded System.
214.	NIGSM05	Remote Monitoring Intelligent System Based on Fingerprint Door Lock
215.	NIGSM06	Electronic Energy Meter With Instant Billing
216.	NIGSM07	Vehicle Accident Intimation And Location Finder Using GSM And GPS
217.	NIGSM08	GSM And GPS Based Vehicle Tracking And Locating System



218.	NIGSM09	LDR Based Highways Road Light Failed Intimation Using GSM And GPS.
219.	NIGSM10	Petrol Determination Using GSM.
220.	NIGSM11	GSM Based Highway Road Traffic Monitoring System.
221.	NIGSM12	GPS Based Border Alert System for Fisherman
222.	NIGSM13	SMS based Weather Reporting System
223.	NIGSM14	GSM based Irrigation System
224.	NIGSM15	Voting machine through GSM modem
225.	NIGSM16	Tilt Measurement and Intimating Using GSM.
226.	NIGSM17	Intelligent Home Security and Management System through GSM
227.	NIGSM18	Transformer Oil and Temperature Checking and Intimating To the EB.

TECHNOLOGY: EMBEDDED

DOMAIN: CONSUMER ELECTRONICS

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
228.	ITCE01	Intelligent Technologies for Self-Sustaining, RFID-Based, Rural E-Health Systems	In this system an RFID based rural health care system is established wherein each patient is provided with a card using which the health care officers can download or upload details from database.	2013
229.	ITCE02	High detection performance of non dispersive infrared CO2 sensor using stair-tapered reflector	In this study, we propose tapered reflectors having stair-like structures that focus scattered infrared (IR) rays to enhance the detection performance of a non-dispersive IR (NDIR) CO2 sensor.	2013
230.	ITCE03	Automated Retail Store Based on RFID	In this paper an electronic trolley system using RID is designed to calculate the bill at the time of picking up products itself to avoid waiting at long queues in Supermarkets and malls.	2013
231.	ITCE04	Prototype of an Underground Multi-Storied Automated Car Parking System	In this paper a intelligent parking system is designed to avoid unnecessary delay times in searching a free slot for parking.	2013



232.	ITCE05	Prototype of a fingerprint based licensing system For driving	In this paper a database is created with fingerprint and RFID, wherein RFID is used as license to start a car along with the corresponding finger print information.	2013
233.	ITCE06	Intelligent Parking System for Car Parking Guidance and Damage Notification	In this paper a parking assist system using ultrasonic sensor is designed along with vibration sensor to identify damage of car and embedded inside a car.	2013
234.	ITCE07	An Interactive RFID-based Bracelet for Airport Luggage Tracking System	In this system a luggage tracking system is designed in which two-way luggage verification is established to avoid unwanted luggage misplacements.	2013
235.	ITCE08	Hybrid RFID System-based Pedestrian Localization: A Case Study	In this paper a system is proposed to identify the locomotive patterns using UWB RFID of people inside a building in order that it is useful for avoiding deep crowds at places and to track activities of the people.	2013
236.	ITCE09	An Open Traffic Light Control Model for Reducing Vehicles CO2 Emissions Based on ETC Vehicles	This paper proposes a three tier system which intelligently reduces CO2 emission of vehicles by controlling Traffic Flow	2012
237.	ITCE10	MEMS Accelerometer Based Nonspecific-User Hand Gesture Recognition	This paper proposes a system in which gesture recognition using MEMS tri axial Accelerometer which can be applied for further applications	2012
238.	ITCE11	Optical Device Indicating a Safe Free Path to Blind People	This paper is an intelligent system for blind people using High intensity light source and a vibrator which aids to find a free path	2012
239.	ITCE12	Sensor Network Based Oil-well Health Monitoring and Intelligent Control	This paper a system is proposed to monitor the oil well parameters & the motors parameters used such as speed, current, voltage.	2012
240.	ITCE13	Target Detection and Classification Using Seismic and PIR Sensors	This paper proposes a system which is employed in Borders to monitor the movement using Seismic and PIR sensor classifying the trespassing as human or animal or Vehicle	2012
241.	ITCE14	Automatic Detection and Recognition of Road Sign for Driver Assistance System	This paper proposes a system which uses MATLAB to recognize road signs and the same is announced using Voice Playback Board.	2012
242.	ITCE15	Mechanism with Four Degrees of Freedom, Design and Construct with Controller for Increasing the Power Output of Solar Cell	In this paper, to increase the power of solar cell in industry and makes a system for getting maximum rate of sunlight in day and seasons which will help to get maximum power from panel . The mechanic part which has been designed so simple and can install in anywhere, by very low power electric motor.	2011
243.	ITCE16	An Integrative Model of Consumer's Adoption of RFID	In this paper, Different approaches to consumer's adoption of new technology-based service into an integrative model. The model is	2011



		Credit Card Service	tested with data from RFID credit card adoption technique.	
244.	ITCE17	An RFID-Based Reminder System for Smart Home	We present a prototype reminder system based on RFID and wireless technologies. The RFID makes it easy to detect and record the objects that the user takes out. Through the analysis on these records, the system would know what the user should bring along every day and what objects the system should put in the reminder list.	2011
245.	ITCE18	RFID and Zigbee Based Manufacturing Monitoring System	In this paper, the RFID and Zigbee based manufacturing monitoring system is a good approach to improve monitoring efficiency so as to improve management efficiency in enterprises.	2011

TECHNOLOGY : EMBEDDED

DOMAIN : NON IEEE-CONSUMER ELECTRONICS

S.NO	PROJECT CODE	PROJECT TITLES
246.	NCE01	Car Monitoring using Bluetooth Security System
247.	NCE02	Large Scale Active RFID System Utilizing Zigbee Networks
248.	NCE03	Real Time Atomization Of Agricultural Environment For Social Modernization of Indian Agriculture System
249.	NCE04	Design of Sensor Modules of Active & Intelligent Energy-saving System
250.	NCE05	A Wireless Sensor Node SoC with a Profiled Power Management Unit for IR Controllable Digital Consumer Devices
251.	NCE06	LDR based Power Saver for Street Light Control System
252.	NCE07	Real Time Clock based automatic college bell ringing system along with temperature display
253.	NCE08	Anti Sleep Alarm for Students Based on RTC
254.	NCE09	Traffic Rules Monitor at Signals
255.	NCE10	Automatic code changing mechanism for Locker Security
256.	NCE11	RTC based automatic water supply
257.	NCE12	Motion Based Password for device switching

**TECHNOLOGY: EMBEDDED****DOMAIN: WEB BASED**

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
258.	ITWB01	Power-Aware Cloud Metering	In this paper a system is proposed to alter the billing system of cloud usage in according to the duration of usage along with the space of usage.	2013
259.	ITWB02	Location-Aware and Safer Cards: Enhancing RFID Security and Privacy via Location Sensing	In this paper a system is designed to achieve location aware privacy by restricting the usage of RFID cards to a particular area with the help of GPS attached to the RFID reader.	2013
260.	ITWB03	A Wireless Sensor Network for Greenhouse Climate Control	In this paper we implemented the WSN-based online microclimate monitoring and control system for green houses.	2013
261.	ITWB04	Design and Implementation of a Web-Service-Based Public-Oriented Personalized Health Care Platform	Creating a public-oriented health care system has triggered considerable research interest in both academia and industry in recent years. In this paper a health care platform is designed using BAN and WSN	2013
262.	ITWB05	Intelligent Fish Disease Diagnostic System Based on SMS Platform	In this paper a system is designed to provide farmers about various fish diseases and diagnostics based on the symptoms found with the fish.	2013
263.	ITWB06	Towards the Implementation of IoT for Environmental Condition Monitoring in Homes	In this paper, we have reported an effective implementation for Internet of Things used for monitoring regular domestic conditions by means of low cost ubiquitous sensing system.	2013
264.	ITWB07	A Protocol Stack Design And Implementation Of Wireless Sensor Network For Emerging Application	This paper describes the design and development of protocol stack for wireless sensor networks for deployment in remote area and emerging applications such as precision agriculture pollution monitoring.	2013
265.	ITWB08	A CAN Bus based system for monitoring and fault diagnosis in Wind Turbine	The wind turbines work in harsh and unattended environment. The monitoring and the automation of wind turbine are necessary. This paper describes the monitoring and fault diagnosis system for wind turbine using CAN interface.	2013
266.	ITWB09	IMA: An Integrated Monitoring Architecture With Sensor N/W.	This paper proposes a system which monitors industrial parameters such as temperature, pressure etc and uploads it in Internet.	2012
267.	ITWB10	A Remote Online Monitoring System for Dam	This paper measures the vital parameters of Dams and uses GPRS technology to remotely monitor the same parameters.	2011
268.	ITWB11	Embedded Web Server Application Based Automation and Monitoring System	This paper proposes an embedded web server which uses Ethernet to monitor and control the sensors and home appliances.	2011



269.	ITWB12	Intelligence Monitoring System Based on ARM And Information Fusion	This paper establishes a system which uses Ethernet along with ARM7 and directly uploads the measured zonal parameters into internet.	2011
270.	ITWB13	Research on water-saving irrigation automatic control system based on Internet of things	In this paper, the design of wireless sensor network and Internet technology of farm-land automatic Irrigation control method. The different farm parameter is updated with internet using Embedded technology.	2011
271.	ITWB14	Development of On-line Monitoring System of Substation Power Equipment Based on IEEE1588 Standard	With the development of digitization of substation, the on-line monitoring system of substation power equipment is adopting the IEC61850 standard to realize substation parameter using wireless communication.	2011
272.	ITWB15	Intelligent online Measurement and Management of energy Meter Data Through Advanced Wireless Network	In this paper, we design an embedded intelligent electric meter based on advanced wireless data acquisition system in view of the complicated cables and accident potential in the process of data acquisition of electric meter.	2011
273.	ITWB16	Web-based Real-time Remote Monitoring for Pervasive Healthcare	This system can continuously measure physiological signals of patient and the data are transferred to remote location in real-time	2011
274.	ITWB17	The Application of Stolen Radioactive Source Tracking System Based on Internet of Things Technology	The design and implementation of radioactive source control management system based on Internet of things technology. The stolen Radioactive Source Tracking is done help of GSM and GPS technology.	2011
275.	ITWB18	Design of On-line Interactive Data Acquisition and Control System for Embedded Real Time Applications	Embedded web server is used to collect the data with clients in online. In this system data can be collected with help of ARM processor.	2011

TECHNOLOGY : EMBEDDED

DOMAIN : NON-IEEE- PC - BASED

S.NO	PROJECT CODE	PROJECT TITLES
276.	NPC01	GSM based instantaneous vehicle registration details extraction system
277.	NPC02	Finger print based secure ATM process
278.	NPC03	Student status identification using GSM
279.	NPC04	Multipurpose card with unique identification
280.	NPC05	RFID based library database management and search tool implementations



281.	NPC06	PC based Examination for Blind people
282.	NPC07	A Design of Bi-verification Vehicle Access Intelligent Control System Based on RFID.
283.	NPC08	Banking password and authentication process using SMS
284.	NPC09	Embedded based intelligent e-voting machine
285.	NPC10	Voice to text conversion design for dumb People Interaction

TECHNOLOGY: EMBEDDED

DOMAIN: ELECTRICAL

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
286.	ITEEEE01	Uncertainty-Aware Household Appliance Scheduling Considering Dynamic Electricity Pricing in Smart Home	In this paper, a new demand side management technique, namely, a new energy efficient scheduling algorithm is proposed to arrange the household appliances for operation such that the monetary expense of a customer is minimized based on the time-varying pricing model.	2013
287.	ITEEEE02	Model Predictive and Genetic Algorithm-Based Optimization of Residential Temperature Control in the Presence of Time-Varying Electricity Prices	This paper presents an optimal control algorithm for residential temperature regulation. The combination of concepts from system identification, model-predictive control, and genetic algorithms result in an optimization methodology capable of achieving an acceptable compromise between comfort and cost in the presence of constant as well as time-varying electricity prices.	2013
288.	ITEEEE03	Electric Vehicle Charging Method for Smart Homes/Buildings with a Photovoltaic System	The paper consists of two parts: EV charging scheduling algorithm for smart homes/ buildings and implementation of prototype application for home/building EMS. The proposed EV charging algorithm is designed to determine the optimal schedules of EV charging based on predicted PV output and electricity consumption.	2013
289.	ITEEEE04	Remote-Control System of High Efficiency and Intelligent Street Lighting Using a Zigbee Network of Devices and Sensors	The proposed remote-control system can optimize management and efficiency of street lighting systems. It uses Zigbee-based wireless devices which enable more efficient street lamp-system management. It uses a sensor combination to control and guarantee the desired system parameters	2013
290.	ITEEEE05	An Optimal Power Scheduling Method for Demand Response	In this paper, we first introduce a general architecture of energy management system (EMS) in a home area network (HAN) based on	2013



		in Home Energy Management System	the smart grid and then propose an efficient scheduling method for home power usage	
291.	ITEEEE06	Crack Depth Estimation by Using a Multi-Frequency ECT Method	In many industrial application fields as manufacturing, quality control, and so on, it is very important to highlight, to locate, and to characterize the presence of thin cracks in conductive materials.	2013
292.	ITEEEE07	Intelligent Household LED Lighting System Considering Energy Efficiency and User Satisfaction	The most waste of energy is caused by the inefficient use of the consumer electronics. Particularly, a light accounts for a great part of the total energy consumption. The proposed LED lighting system reduces total power consumption.	2013
293.	ITEEEE08	Green Charge: Managing Renewable Energy in Smart Buildings	Distributed generation (DG) uses many small onsite energy harvesting deployments at individual buildings to generate electricity. DG has the potential to make generation more efficient by reducing transmission and distribution losses, carbon emissions, and demand peaks.	2013
294.	ITEEEE09	Management of Mechanical Vibration and Temperature in Small Wind Turbines Using Zigbee Wireless Network	The objective with this research is propose a new diagnostic and protection tool through analysis and monitoring signals of vibration and temperature from wind turbines, aiming predict a need of preventive maintenance and mostly avoids catastrophic failures.	2013
295.	ITEEEE10	Speed Control of Electrical Drives Using Classical Control Methods	A classical control approach to the design and analysis of proportional-integral (PI) speed controllers for electrical drives is presented.	2013
296.	ITEEEE11	The Wireless Transmission Design of a Novel Electronic Current Transformer	This study presents a novel electronic current transformer (ECT), which is based on the Hall current transformer (HCT), and a wireless transmission system. The novel ECT is aimed to be used in both measuring and protective current transformers, and the design of the wireless communication makes ECTs more flexible for current measurements at different current levels in power systems.	2013
297.	ITEEEE12	Embedded System Integrated Into a Wireless Sensor Network for Online Dynamic Torque and Efficiency Monitoring in Induction Motors	In this proposed system has been designed for monitoring of the torque and efficiency of the induction motor. The values calculated by the embedded system are transmitted to a monitoring the unit through an IEEE 802.15.4-based WSN.	2012
298.	ITEEEE13	Hybrid Optoelectronic Sensor for Current and Temperature Monitoring in Overhead Transmission Lines	This proposed system describes the monitoring of the current and temperature in high voltage transmission lines. The system uses reliably proven electronic technology to measure temperature and current.	2012



299.	ITEEE14	Design and Performance Analysis of Water Pumping Using Solar PV	This paper deals with the connection of DC solar water pump is built and experimented to observe the results with a direct connection from solar array.	2012
300.	ITEEE15	Energy Monitoring System using Sensor Networks in Residential Houses	This paper proposes a PLC system in which the daily power consumption for each device and transmitted in wireless to the created database section.	2012
301.	ITEEE16	Smart Charge: Cutting the Electricity Bill in Smart Homes with Energy Storage	This paper introduces a system which assists the users in energy conservation at homes by reducing the power fluctuations.	2012
302.	ITEEE17	Research on an Improved PWM Control Mode of DC Motor	This paper proposes an improved PWM control based on MOSFET to control the speed of the DC Motor.	2012
303.	ITEEE18	Design for Middle-Way of Intelligent Energy-Saving System with Embedded System	This paper proposes an online controlled environmental system which automatically controls the environmental parameters according to the set value.	2012
304.	ITEEE19	The Design and Implementation of Power Earth-Line Monitoring System	This paper describes the power earth-line monitoring system for the planning, design and implementation process. Ground state data of the power lines are collected by the monitor, and then the data are transmitted to monitoring platform through the GSM short message.	2011
305.	ITEEE20	Supervisory Predictive Control of Standalone Wind/Solar Energy Generation Systems	In this Paper, we design the supervisory control system via model predictive control which computes the power references for the wind and solar subsystems.	2011
306.	ITEEE21	Real Time Control of DC Motor Drive using Speech Recognition	This paper introduces a new approach to control and drive the DC motor, using speech recognition. Using MATLAB process the speech is recognized and PC gives control commands to the controller to drive DC motor.	2011
307.	ITEEE22	360° Sun Tracking With Automated Cleaning System For Solar PV Modules	A novel mechanism of sun tracking with automatic cleaning of PV modules is presented and cleaning Mechanism of the PV modules consists of sliding brushes, which slides over module and cleans it twice a day, wherein PV panel makes a rotation of 360o in a day.	2010
308.	ITEEE23	A Novel Technique for Preventing Current Method Electricity-stealing.	In this project we can recognize the normal, opened or shorted state of current transformer secondary side circuit correctly and we can prevent current method electricity-stealing effectively.	2010

**TECHNOLOGY : EMBEDDED****DOMAIN : NON-IEEE-ELECTRICAL BASED**

S.NO	PROJECT CODE	PROJECT TITLES
309.	NIEEE01	Voice operated induction motor speed control through RF communication
310.	NIEEE02	A New Intelligent Remote Control System for Home Automation and Reduce Energy Consumption.
311.	NIEEE03	Payment system made automatic as per consumer requirement
312.	NIEEE04	Low Cost Solar ECG with Bluetooth transmitter
313.	NIEEE05	Transformer industrial parameters fault identification and intimate to EB section
314.	NIEEE06	Energy meter monitoring and control system using SMS technology
315.	NIEEE07	Automatic Induction Motor Starter With Programmable Timer
316.	NIEEE08	Induction Motor Control using Touch Screen
317.	NIEEE09	LDR based automatic lamp illumination controller with High Power/Intensity LED lighting
318.	NIEEE10	Contactless Digital Tachometer Using IR
319.	NIEEE11	PID Controller for DC motor
320.	NIEEE12	Microcontroller based Multiple device control based on change in input frequency
321.	NIEEE13	Microcontroller based coded device switching system for multiple device switching
322.	NIEEE14	Digital Watt meter with voltage and current display
323.	NIEEE15	Frequency meter for Digital Signals using microcontroller

TECHNOLOGY: EMBEDDED**DOMAIN: BIO MEDICAL**

S.NO	PROJECT CODE	PROJECT TITLES	DESCRIPTION	YEAR
324.	ITBIO01	Development of a Wireless Sensor for the Measurement of Chicken Blood Flow Using the Laser Doppler Blood Flow Meter Technique	This paper proposed a Wireless blood flow measurement using Sensor which we are showing the blood flow of a person instead of chicken.	2013



325.	ITBIO02	A Minimally Invasive Implantable Wireless Pressure Sensor for Continuous IOP Monitoring	Diagnosis of Glaucoma (Eye) monitoring system using continuous wireless monitoring of Intraocular Pressure (IOP).	2013
326.	ITBIO03	Pervasive Assessment of Motor Function: A Lightweight Grip Strength Tracking System	This paper introduces a highly mobile and inexpensive monitoring system to quantify Upper-limb performance for patients with movement disorders.	2013
327.	ITBIO04	A Framework for Daily Activity Monitoring and Fall Detection Based on Surface Electromyography and Accelerometer Signals	Healthcare for the elderly and patients with chronic diseases. Daily activity monitoring System, patient monitoring, rehabilitation, and emergency response, etc.	2013
328.	ITBIO05	Magneto-elastic Sensors for the Detections of Pulse Waves	This paper proposed a blood pressure sensing using non-invasive pulse wave detection method.	2013
329.	ITBIO06	Wavelet Based ECG Steganography for Protecting Patient Confidential Information in Point-of-Care Systems	In this paper, a wavelet based steganography technique has been introduced which combines encryption and scrambling technique to protect patient confidential data. The proposed method allows ECG signal to hide its corresponding patient confidential data and other physiological information thus guaranteeing the integration between ECG and the rest.	2013
330.	ITBIO07	Experimental Investigation of the Roles of Blood Volume and Density in Finger Photoplethysmography	This paper presents a method to measure Blood volume and density using pulse transducer	2013
331.	ITBIO08	Bluetooth Electrocardiogram	This paper presents ECG-monitoring systems using wireless and easily adaptable method based on Bluetooth communication.	2013
332.	ITBIO09	An In-home Medication Management Solution Based on Intelligent Packaging and Ubiquitous Sensing	This paper presents a Pervasive healthcare system using Passive RFID and Wireless Biomedical Sensor Network.	2013
333.	ITBIO10	A Pervasive Health System Integrating Patient Monitoring, Status Logging, and Social Sharing	This paper, presents the design and development of a pervasive health system enabling self-management of chronic patients during their everyday activities using Sensors.	2013
334.	ITBIO11	Multivariate Prediction of Subcutaneous Glucose Concentration in Type 1 Diabetes Patients Based on Support Vector Regression	This paper, presents the design of monitoring Diabetic Patient's blood glucose concentration using Sensor and Analysis.	2013



335.	ITBIO12	Wireless Recording Systems: From Noninvasive EEG-NIRS to Invasive EEG Devices	This paper presents the design and implementation of a wireless wearable electronic system dedicated to remote data recording for brain monitoring (EEG). The reported wireless recording system based on Bluetooth communication.	2013
336.	ITBIO13	A Fast and Easy-to-Use ECG Acquisition and Heart Rate Monitoring System Using a Wireless Steering Wheel.	In this system the ECG and heart rate of a person by fixing the system inside the steering wheel and transmitted to wireless mode.	2012
337.	ITBIO14	A Passive Radio-Frequency pH-Sensing Tag for Wireless Food-Quality Monitoring	This system proposes the method to sense the pH level of the food by checking the acidity level and sending the data in wireless communication to receiver side.	2012
338.	ITBIO15	A Wearable Inertial Sensor Node for Body Motion Analysis	In this system a wearable sensor node is designed to check the body motion of a person like sitting, walking and standing etc.	2012
339.	ITBIO16	A Zigbee-Based Wearable Physiological Parameters Monitoring System	This system proposes a method to monitor the patient abnormal parameters by designing wearable sensors for checking the condition of a patient.	2012
340.	ITBIO17	Self Healthcare Management System based on RFID Technology	In this system the biomedical parameters like weight, temperature and other data's are monitored and stored in the chip i.e. RFID tag. This tag is used for future details extraction of a patient.	2011
341.	ITBIO18	Design, Development and Testing of a Wireless Sensor Network for Medical Applications	In this paper the patient parameters are obtained and transmitted to receiver section with PC and also send as message to the well-wishers through GSM modem.	2011
342.	ITBIO19	Design Of Portable Heart Rate Acquisition Instrument Bases On Bluetooth Transmission	In this system the heart rate data of a patient is monitored and transmitted to the receiver section using Bluetooth technology.	2011
343.	ITBIO20	A Zigbee-Based Tele cardiology System for Remote Healthcare Service Delivery	In this paper, this system provides doctors with the ability to monitor ECG level of patients over the Internet with help of Zigbee protocol.	2011

TECHNOLOGY: EMBEDDED**DOMAIN: NON IEEE - BIO MEDICAL**

S.NO	PROJECT CODE	PROJECT TITLES
344.	NBIO01	Dew-Based Wireless Mini Module for Respiratory Rate Monitoring
345.	NBIO02	Sensors-Based Wearable Systems for Monitoring of Human Movement and Falls



346.	NBIO03	A Single Supply Standard 8051 Microcontroller based Medical K-grade Isolation ECG Module with Graphics LCD
347.	NBIO04	Design of Wireless Sensor System for Neonatal Monitoring
348.	NBIO05	Wireless Sensor Networks for Monitoring Physiological Signals of Multiple Patients
349.	NBIO06	Monitoring of Posture Allocations and Activities by a Shoe-Based Wearable Sensor
350.	NBIO07	The intelligent blood collecting apparatus based on internetworking
351.	NBIO08	Secure Remote Patient Monitoring System
352.	NBIO09	A Real-Time Wireless Brain-Computer Interface System for Drowsiness Detection
353.	NBIO10	A Novel MEMS Respiratory Flow Sensor
354.	NBIO11	Dew-Based Wireless Mini Module for Respiratory Rate Monitoring
355.	NBIO12	Sensors-Based Wearable Systems for Monitoring of Human Movement and Falls
356.	NBIO13	A Single Supply Standard 8051 Microcontroller based Medical K-grade Isolation ECG Module with Graphics LCD

Education Partners:



Technologies and Domain used:

IEEE 2013, Java, J2ee, Android, Dot net, PHP, Embedded, Vlsi, Matlab, VB, Net working, Data Mining, Image Processing, Cloud Computing, Mobile Computing, Multimedia, Network Security, Soft Engg, Grid Computing, Automation, Robotics, Communication, RF, Zigbee, Blue tooth, GSM/GPS/GPRS, Power Electronics & Systems, Electrical, DSP, RTOS, Bio metrics, etc.

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